

**Peak Resources Ltd**

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Western Australia 6153

PO Box 1271  
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Western Australia 6153

**Stock Exchange**  
Australian Stock Exchange  
Symbols: **PEK, PEKO, PEKOA**

**Issued Capital**  
83.2m Shares  
23.8m Dec '10 Options  
32.7m Sept '09 Options  
0.6m Dec '10 Options  
[www.peakresources.com.au](http://www.peakresources.com.au)

**Directors:**

Mark Maine  
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Rodney Foster  
*Non Executive Director*  
Alastair Hunter  
*Non Executive Director*

**Tanzania:**

**Gold**

- Geita
- North Mara
- Ikoma
- Igunga

**Phosphate and REE**

- Ngualla

**Western Australia:**

**Base Metals:**

Ashburton

**Gold:**

Menzies  
Three Rivers

**Nickel:**

-Yellowdine

**Overview**

- *The Ngualla Project proceeded from Offer to Grant within a short period enabling full exploration to commence on the Project. Field exploration team is now on site with camp and access roads established. Initial observations have been encouraging with results expected to become available towards the end of October and into November.*
- *Imweru Project data review outlined high grade historic gold assay results from drilling in 2000 and 2001. Results included*
  - *20.1 g/t over 1m within a zone averaging 7.09g/t over 3m from 16m down hole (RAB-IRB0016);*
  - *33.5 g/t gold over 1m from 34m down hole (IRB003);*
  - *31.5 g/t over 1m in a zone averaging 9.39 g/t over 4m from 54m down hole (IRC 004);*
  - *10.1 g/t over 1m in a zone averaging 7.91 g/t over 5m from 52m down hole (RAB-IRB027).*
- *Negotiations continuing on advanced Tanzanian gold project.*
- *Peak's Tanzanian Gold Project operations to focus on Lake Victoria Goldfield.*
- *Five new licences issued during the quarter in Tanzania*
- *Exploration Programme scheduled for Three Rivers Project north of Meekatharra and adjacent to Sandfire Resources NL's tenements containing the recently discovered De Grussa and Conductor 1 copper-gold deposits.*
- *Licence granted on Yellowdine Nickel Project.*
- *Menzies Gold Project joint venture agreement executed.*
- *Metminco withdraw from Ashburton Base Metal Project.*

**Tanzanian Projects**

**General**

During the quarter the board undertook an in country review of current project portfolio to considered and inspected a number of prospective gold project opportunities. This resulted in entering into negotiations on a number of new prospects with one project now currently under offer. In field reviews also provided information enabling the uncovering of data associated with earlier activity within the West Geita Project licences.

The work of Peak's in country manager and joint venture partner, Zari Exploration Limited, has enabled the smooth passage of the licencing process for the Ngualla Project. The outstanding facilitation by Zari resulted in the Licence being received in September and infield work commencing immediately upon receipt of licence documentation. We now eagerly anticipate results from this work over the coming weeks. Peak expresses its appreciation for the work of the Zari management group in securing tenure to this exciting project area.

## Ngualla Project

(Peak Resources earning 80%)

The Ngualla Carbonatite is located approximately 150km northwest of the city of Mbeya in the southwest of Tanzania. It is a plug like intrusive system having various successive carbonatite phases. The Carbonitite was identified in the early 1980's by work undertaken as part of a agrogeology project with a Canadian university based non government organisation (NGO).

Reviews have identified the extent of phosphate occurring in residual soils with work completed by NGO geologists including:

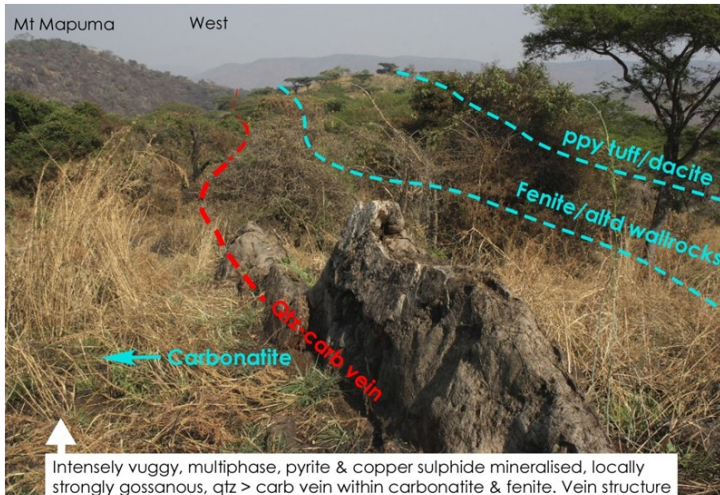
- Four exploration pits being dug over an area of approximately 3km x 1km returning up to 20% P<sub>2</sub>O<sub>5</sub>, including 1m @ 19.2%, 2.25m @ 16.3%, 3m @ 13.45% and 1m @ 13.8% P<sub>2</sub>O<sub>5</sub> in channel sampling;
- The existence of a late phase 15-20 metre wide magnetite-apatite vein that extends over several hundred metres; and
- Two separate discoveries of phosphate minerals, with the primary phosphate rich zone centred on possible apatite rich carbonatites and fenites which have been discovered in dyke like zones with higher magnetic and radiometric signatures.

Additionally there have been reported occurrences of REE's grading up to 7% within the carbonitite and base metal occurrences within the tenement. The Company has targeted the area as highly prospective and as having the potential to add significant value to the asset base and shareholder wealth,

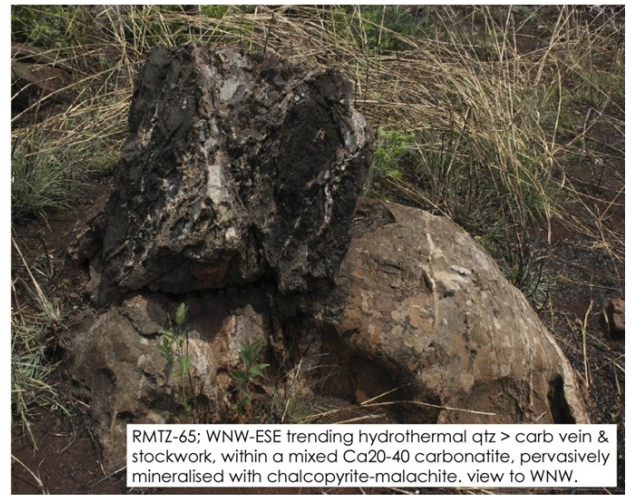
On August the 6th the Peak Resources advised that a Letter of Offer had been received from the Tanzanian Ministry for Energy and Minerals for the grant of the prospecting licence over the project area. This Offer was accepted and the physical licence was subsequently issue by the Minister for Energy and Minerals with the Company being advised on 29 September. The issue of the Prospecting Licence the licence for the Ngualla Project has enabled full scale exploration to commence. The Company is now engaged in the first round of field based exploration having established a 12 man base camp and access roads across the carbonitite.

The current programme incorporates detailed geological mapping of the licence area together with a 200m x 200m soil sampling programme across the carbonitite and the hinge zones. Additionally an large number of rock chip samples are being taken within the scope of works. Peak is utilising an Innovx Field Portable XRF machine in this first phase of work with one in ten samples to be cross checked to laboratory assay results.

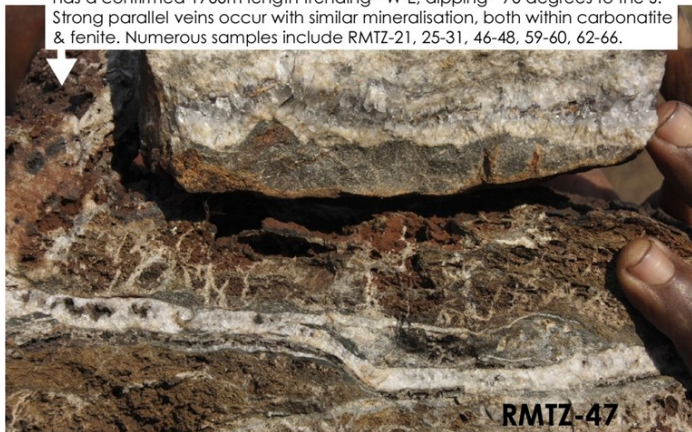
Initial reports from the field team have underlined the potential of the project to host a range of styles of mineralisation. Where the carbonitite contacts the wallrocks extensive alteration has been noted along with strongly and K (potassic) altered, very brittle fractured material,



Intensely vuggy, multiphase, pyrite & copper sulphide mineralised, locally strongly gossanous, qtz > carb vein within carbonatite & fenite. Vein structure has a confirmed 1700m length trending ~W-E, dipping ~70 degrees to the S. Strong parallel veins occur with similar mineralisation, both within carbonatite & fenite. Numerous samples include RMTZ-21, 25-31, 46-48, 59-60, 62-66.



RMTZ-65; WNW-ESE trending hydrothermal qtz > carb vein & stockwork, within a mixed Ca20-40 carbonatite, pervasively mineralised with chalcopyrite-malachite, view to WNW.



RMTZ-47



Cpy, malachite (+ chalcocite & cuprite?) in cgr mixed Ca20 & 40



RMTZ-65; brittle fractd. Q>cb veined, si-pervaded cbtt with disseminated chalcopyrite & malachite staining.

## West Geita Gold Project

(Peak Resources earning 75%)

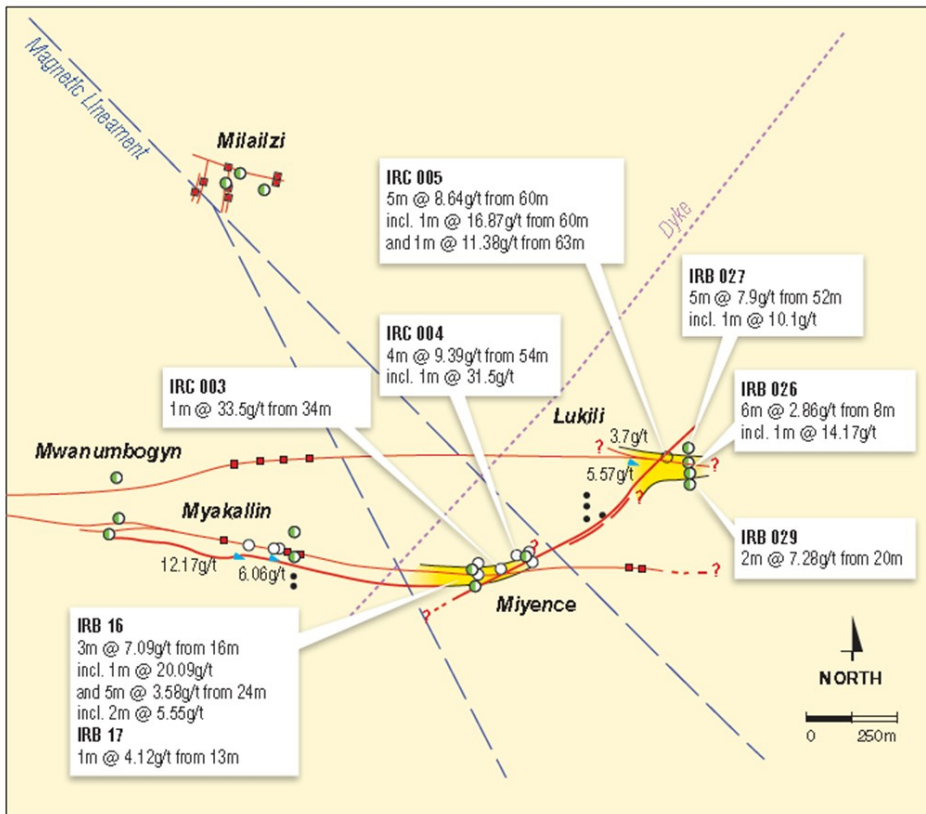
The West Geita Project comprises licences under offer or application totalling approximately 210sq km within the archaean greenstone belt that hosts the world class Geita Gold Mine (AnglogoldAshanti) The Geita Mine has a total size of 23.8Moz @ 3.3 g/t (production plus reserves and resources) and has produced in excess of 3.3Moz since modern mining commenced in 2000.

### Imweru Prospect

During July Peak undertook regional reconnaissance work within the Geita West Project area. Limited historic data had been available in respect of the Project licence areas detailing work undertaken by earlier explorers. Interviews with artisanal miners on site identified an Australian exploration company had undertaken a drilling programme in or about 2000 and 2001. Follow-up investigations resulted in the identification of earlier explorer and lead to the recovery of exploration data including geochemical and geophysical surveys, mapping together with initial RAB and RC drilling. (The earlier explorer withdrew from the Imweru Project following acquisition of a nickel mine in Australia approximately three six months after the drilling at Imweru was undertaken.)

The drilling in mid 2000, while limited and shallow, has demonstrated the likely presence of high grade gold mineralisation with considerable upside through untested areas and extensions of known mineralisation. Numerous anomalous gold results were obtained including a number of extremely high grade gold intercepts including a number exceeding 30g/t gold (significant results set out in table on page []). Higher grade drill intercepts included:

- 7.09g/t over 3m from 16m down hole including 20.1 g/t over 1m (RAB–IRB0016);
- 33.5 g/t gold over 1m from 34m down hole (IRB003);
- 9.39 g/t over 4m from 54m down hole including 31.5 g/t over 1m (IRC 004);
- 7.91 g/t over 5m from 52m down hole including 10.1 g/t over 1m (RAB-IRB027).



### IMWERU PROJECT TANZANIA

#### LICENCE LOCATION PLAN

#### LEGEND

##### SAMPLE TYPE

- RC drill hole
- RAB/Aircore drill hole
- Drill holes containing > 1g/t gold over 1m
- ▲ 3.7g/t Rock chip sample gold grade in g/t
- Shear zones containing auriferous quartz veins
- Exposed auriferous quartz reefs
- ⤴ Potential high grade gold mineralised zones
- ✂ Mineralised intersection





Additionally, extensive artisanal workings were observed during recent fieldwork with exposures of numerous auriferous quartz veins.

From the data Peak has interpreted from previous drilling extensive zones of anomalous gold mineralisation extending over approximately 8km of strike that is gold anomalous within which high grade intercepts have been recorded. Obtaining the data set has advanced the Project providing the an improved understanding of the potential within the project

The Imweru Prospect is an extremely promising opportunity for the Company with shallow high grade mineralisation providing the potential for early development.

Above—Peak Resources Directors, Rodney Foster and Alastair Hunter, with Project Geologist, Edson Kayogoma, examine artisanal workings at Imweru

**Table of Significant Intercepts (data from previous explorer)**

Hole ID	East	North	Az/Dip	Tot depth	From	To	Intercept	g/t gold
IAC019	377199	9679497	316/-60	35m	18	22	4m	@ 1.25
IRB001	376785	9678705	180/-60	54m	2	4	2m	@ 2.19
IRB008	377280	9678551	180/-60	74m	64	66	2m	@ 1.26
IRB010	377282	9678483	180/-60	38m	31	33	2m	@ 2.25
IRB016	377801	9678430	180/-60	39m	16	19	3m	@ 7.09
IRB016					17	18	inc 1m	@ 20.1
IRB016					24	29	5m	@ 3.58
IRB017	377796	9678419	180/-60	54m	13	19	6m	@ 1.12
IRB019	377939	9678489	183/-60	56m	52	54	2m	@ 2.11
IRB020	377951	9678465	171/-60		26	30	6m	@ 1.34
IRB027	378398	9678737	180/-60	59m	0	2	2m	@ 1.03
IRB027					30	31	1m	@ 3.05
IRB027					52	57	5m	@ 7.91 EOH
IRB028	378399	9678711	180/-60	52m	8	14	6m	@ 2.86
IRB028					18	21	3m	@ 1.87
IRB029	378402	9678686	180/-60	60m	20	22	2m	@ 7.28
IRC002	377238	9678504	197/-60	81m	55	59	4m	@ 1.26
IRC003	377862	9678444	170/-60	81m	16	18	2m	@ 1.15
IRC003					34	35	1m	@ 33.5
IRC003					38	41	3m	@ 2.53
IRC003					70	72	2m	@ 0.62
IRC004	377915	9678484	184/-60	75m	38	40	2m	@ 1.67
IRC004					54	58	4m	@ 9.39
IRC004					54	55	inc 1m	@ 31.5
IRC004					74	75	1m	@ 0.64 EOH
IRC005	378332	9678752	190/-65	99m	45	47	2m	@ 0.64
IRC005					60	65	5m	@ 8.64

Information in the above table was extracted from the data base of a previous explorer and have not been subject to independent verification by Peak Resources.

### *Licence Status*

The Imweru Project area is one of seven licences under offer or application within the Geita West Project Group. The Imweru licence has been offered by the Tanzanian Ministry to Zari Exploration (Peak's joint venture partner (Peak earning a 75% interest). Upon issue of the physical licence ground disturbing work, such as drilling, can be undertaken. In the interim Peak is continuing to undertake desktop studies of available data.

### **Lupa Gold Project**

*(Peak Resources earning up to 70% - status withdrawn)*

The Lupa Gold Project is located in Southern Tanzania and approximately 50 km northeast of the regional centre of Mbeya. Lupa is the second largest goldfield in Tanzania after the Lake Victoria Goldfields. Peak's Lupa project comprises 8 tenements and applications covering approximately 90 sq km. Within the JV area, limited historical exploration and mining has been carried out over the past 20 years.

Peak had been targeting broad zones of mineralisation capable of providing a gold resource of circa 250,000 oz of gold at plus 2.7 g/t. Having considered the results of both soil and trenching work carried out earlier in 2009 the Company concluded that the mineralisation identified is tightly confined mineralisation (with a lack of continuity between trenches) that is structurally controlled and unlikely to provide the size and nature of mineralisation that the Company is seeking.

Having carefully considered the results from trenching and reviewed technical issues associated with the sampling Peak's interpretation of the nature of mineralisation within the licences and costs associated with operating in this region the Company has decided to focus its exploration programmes on the Lake Victoria Goldfield region in preference to Lupa. Consequently the Company has ceased to earn an interest in the Lupa licences.

### **Igunga Gold Project**

*(Peak Resources earning 70% interest)*

The Igunga Project is located approximately 80km ESE of the 3.2 Moz Golden Pride Mine (Resolute Mining Limited ASX:RSG). The project comprises prospective Achaean Greenstones and Banded Iron Formations (BIF) that has little systematic exploration completed to date. Previous exploration conducted over the area has shown the potential for the project to host two separate styles of mineralisation, namely shear hosted quartz veining and BIF hosted gold.

Soil geochemistry conducted by previous explorers have highlighted anomalous gold in soil and identified outcropping pyritic (sulphide) BIF sequences (repeated) that sub-crop over a strike length greater than 1 kilometres before being masked by recent cover within the Igunga Tenements.

The Company has undertaken two work programmes over the project. The first a soil sampling programme carried out in September 2008 followed by a trenching and geochemical programme in March 2009.

Peak completed initial soil sampling based on an approximated grid of 25m x 100 m over the project area was undertaken in the December Quarter. This highlighting a soil anomalism (peak of 164ppb Au) coincident with sub cropping BIF and altered quartz vein felsic volcanic. This was followed up in April when a second programme of soil sampling was undertaken in addition to a trenching programme within the area of soil anomalism highlighted in the December Quarter.

Trenching at Igunga was completed within a gold in soil anomalous zone. The trenching has encounter low level gold anomalism associated with banded iron formation and the altered felsic volcanic. Broad spaced offset soil sampling (300m x 300m) with reconnaissance geological mapping has been completed within two other tenements in the Igunga area. This has resulted in the partial delineation of a gold anomaly which will requires further work. on the outlined +1,000m x 300m zone with gold in soil value of +100 ppb gold against a background of 25ppb.

The Company is planning a drill programme on the area of gold in soil anomalism.

### North Mara & Ikoma Gold Projects

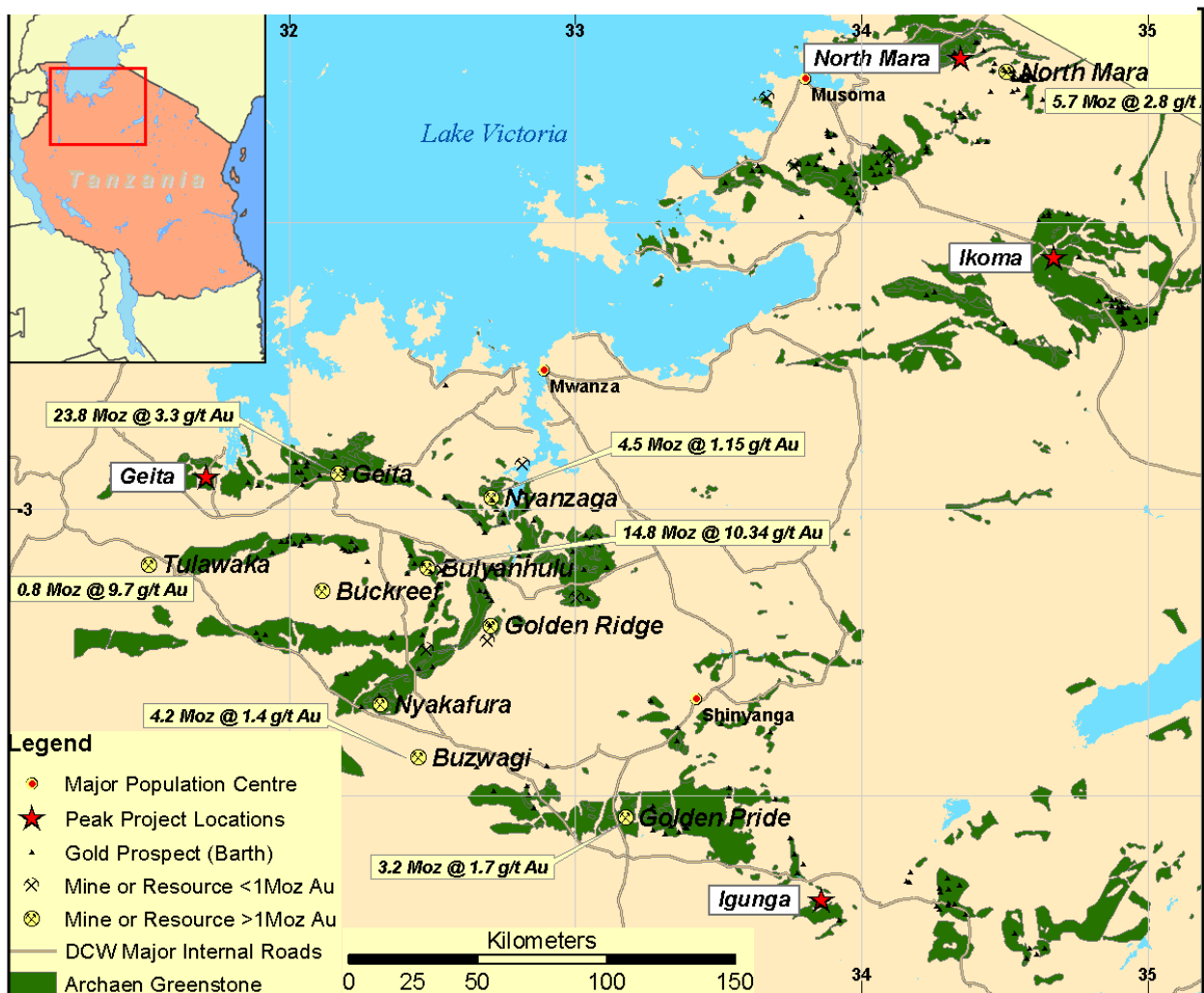
The North Mara & Ikoma Projects comprise 220 km<sup>2</sup> of prospective greenstones located in the north of Tanzanian within the LVGF and within proximity to the large North Mara Gold Mine (5.7 Moz Au) that is operated by Barrick Gold.

Though the projects have evidence of historical mining activities located within and proximal to the tenements, little exploration has been done to date. The projects are located within mapped greenstones that have favourable structural settings. No field work was undertaken during the quarter.

### New Licence Grants (Tanzania)

In addition to the grant of the licence over the Ngualla Project area the Company through its joint venture partner, Zari Exploration has recently been granted a further four licence areas (previously under Offer) within the North Mara, West Geita and Igunga Project areas.

## LAKE VICTORIA GOLDFIELDS—PROJECT LOCATION MAP



## WESTERN AUSTRALIAN PROJECTS

### Three Rivers Project

*(Peak Resources 100%)*

The Three Rivers Project is located approximately 130km NNE of Meekatharra and 250km SSW of Newman in Western Australia. The Project is readily accessible by the Great Northern Highway which passes within 10km of the Project.

Peak Resources Three Rivers Project lies between the project of the same name held by Alchemy Resources and to the west of Sandfire Resources NL's tenements, which contain the recently discovered DeGrussa and Conductor 1 copper gold deposits.

In light of recent developments in the region the Company is in the process of reviewing earlier data and has scheduled an exploration for the project including follow-up geochemical and geophysical work programmes.

In the course of earlier regional exploration three separate zones of outcropping iron mineralisation were located. Identified iron formations were observed over a strike length of approximately 3.5 km with a higher-grade core over 2.5 km. The iron formations vary in thickness (up to 100 metres at surface) and are expected to continue to the Southwest where it is masked by alluvial cover. During an initial programme undertaken in 2007 a series of rock chip samples were collected from the weathered outcrop of the iron formations at surface, these samples have returned encouraging results with a peak assay being returned at 75.2% Fe<sub>2</sub>O<sub>3</sub>.

This first pass programme was undertaken to assess the economic potential of the iron formations, with the main focus to be placed on the southern end where the mineralisation continues underneath cover in an area that has a stronger magnetic signature than the outcropping zones further to the Northeast. The size of the aeromagnetic anomaly given that a masking effect from the alluvial cover would diminishes the magnetic response, provided scope to the project as it is currently interpreted as being caused by:

- ◆ An increase in the iron grade associated with higher levels of magnetite and haematite returning a higher magnetic signature; and/or
- ◆ A reduction in low magnetic response contaminants, i.e. silica, phosphorous and alumina; and/or
- ◆ An increase in the volume of material (thickness).

Based upon currently available data potential of the area to host economic deposits of iron is considered by Peak to be low.

INSERT REGIONAL LOCATION MAP

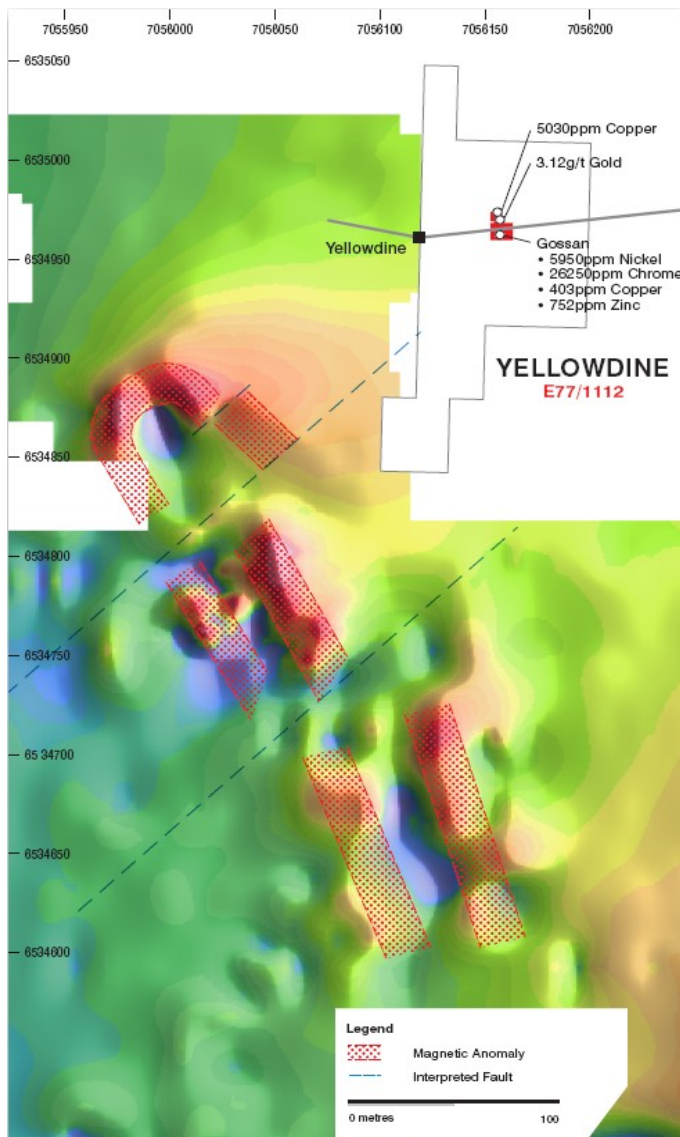
## Yellowdine Nickel Project

Peak Resources Option agreement to acquire 100%)

The Yellowdine Nickel Project is located 40 kilometers east of Southern Cross in the Southern Cross Province of the Archean Yilgarn Craton. The project consists of a single Exploration Licence that was granted shortly after the end of the quarter.

The Yellowdine Project hosts a series of nickel gossans that outcrop/subcrop over a strike length of 600 metres, that is coincidental with a number of dislocated high magnetic units.

### YELLOWDINE—GROUND MAGNETICS



Sampling of the gossan has returned consistently high nickel grades (Around 0.5%) with associated cobalt (up to 2.6%). A sample of the Gossan was sent for petrographic analysis by Pathfinder Exploration Pty Ltd.

Pathfinder identified that the gossan was most probably mesocumulate to adcumulate **komatiite** that contains relic textures suggesting a **sulphide precursor**. The project is adjacent to major infrastructure, including Road, Rail, Water Pipeline & Grid Electricity.

Having been granted the Company is now planning the its first phase of exploration and has 18 months to elect whether to exercise its option over the licence. The exercise price of the option is \$100,000 in cash or securities at the market price prevailing at the time of exercise. Exploration will focus on the nickel potential within an identified undrilled Gossan to the south of the main east west highway that intersects the licence area. In addition to its nickel potential the Project area has potential to host economic gold mineralisation within a number of target areas.

## Ashburton Base Metals Project

(Peak Resources 100%)

Following a change in the direction of farm-in partner, Metminco Limited, that company elected to withdraw from the project to focus on newly acquired to interests in South America. As a result Peak Resources will retain a 100% interest in the project area.

No work was undertaken during the quarter on the Ashburton Project.

## **Menzies Gold Project**

*(Peak Resources 100% - Blue Star earning 51%)*

During the quarter the Company entered a farm-in agreement with public unlisted company BlueStar Resources Limited. Under the agreement, which excludes rights to low grade ore stockpiles, BlueStar may earn a 51% interest by expending \$400,000 within a two year period and a further 24% by expending an additional \$600,000 on the project licences.

Peak is currently reviewing available options in respect of low grade ore stockpiles that remain at surface from earlier mining activity.

## **Corporate**

On the 30th of September a total of 32,675,001 PEKO options expired. No options in this class (which were exercisable at 25 cents) were converted.

At the end of the September Quarter the Company had approximately \$804,000 at bank.

## **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.*