



# PEGASUS METALS LIMITED

ASX RELEASE

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## PEGASUS SECURES MAJOR URANIUM PORTFOLIO

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- **Pegasus acquires three new Kimberley, WA exploration projects**
- **2,700 km<sup>2</sup> of granted tenements and applications**
- **Uranium the main mineral sought**
- **Uranium hard rock potential associated with uraniferous granites**
- **Extensive Tertiary palaeochannels identified from satellite imagery**
- **Large unexplored placers to be tested**
- **Additional potential for gold and other mineral occurrences**

### Introduction

Pegasus Metals Limited (ASX code: PUN) is pleased to announce its acquisition of two large exploration tenement packages covering about 2,700 km<sup>2</sup> in the East Kimberley region of Western Australia. (Figure 1)

Uranium is the main mineral sought and the package has uranium hard rock potential associated with uraniferous granites with known uranium oxides, and extensive palaeochannels and placer deposits generated by Tertiary drainage of the source rocks

After uranium, gold is the next main target mineral. Other reported mineralisation includes tin, tantalum, tungsten, molybdenum and other base metals.

The recently discovered palaeochannel/placer deposits are totally untested and are believed to dwarf all prior placer discoveries in Australia. They offer Pegasus the opportunity to define uranium and gold resources within a newly discovered though well recognised geological host with proven resource-bearing potential.

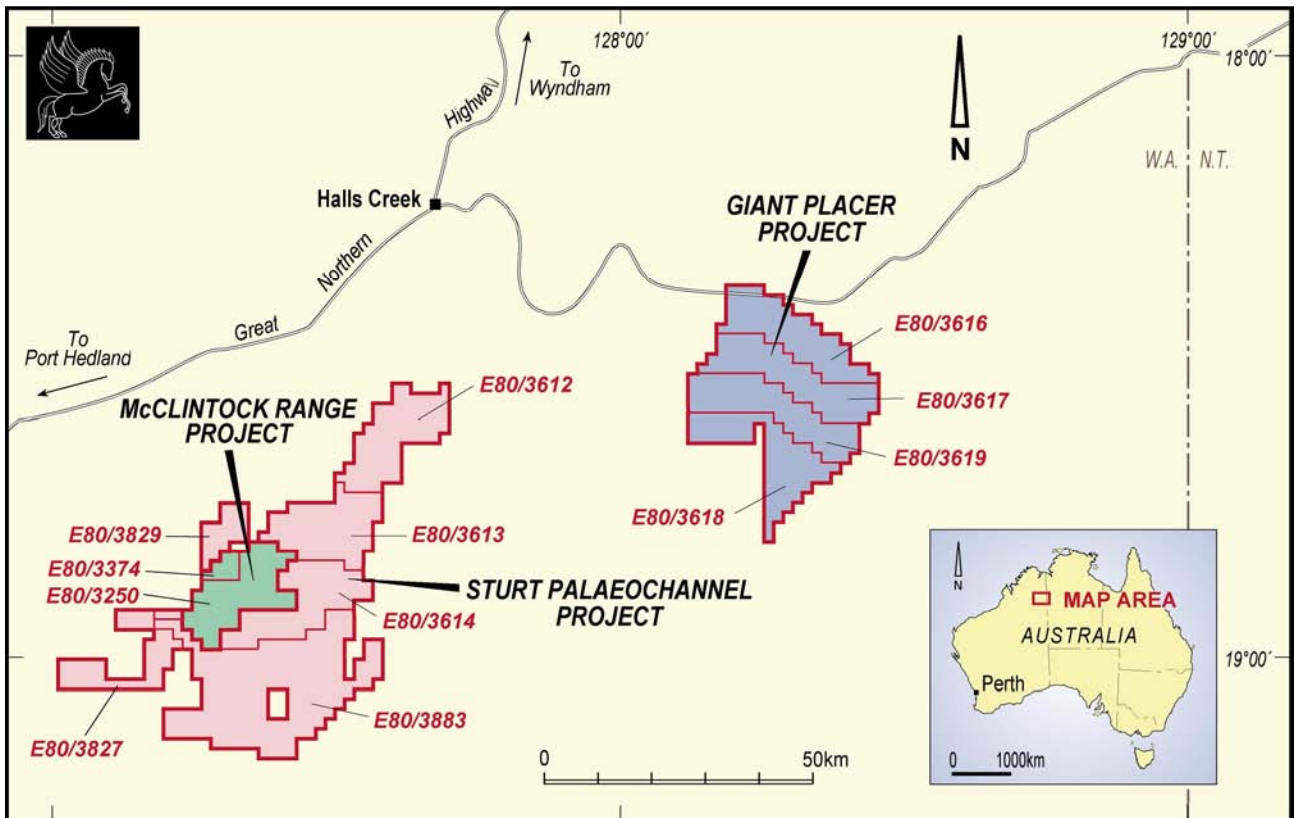
Pegasus considers itself fortunate to have obtained this large, highly prospective exploration package in an under-explored region which has recently been covered with new tenement applications.

The projects are located southwest and southeast of Halls Creek and are called the:

*Sturt Palaeochannel & McClintock Range Projects and the Giant Placer Project,*

The project areas were selected by the vendor as replicates of geological environments hosting world class mines and with attendant mineralisation and structural controls that have yet to be drill tested.

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**Figure 1 PROJECT LOCATIONS**

The *McClintock Range Project* provides Pegasus with a joint venture opportunity to explore the hard rock potential of radioactive granites exhibiting visible uranium oxides and the untested uranium potential of Tertiary palaeochannels draining the outcropping mineralisation. The mineralising granites are flanked by skarns within sedimentary sequences hosting tin, tantalite, tungsten, molybdenum and copper mineralisation. The mineralised structure continues to the east under a veneer of aeolian soils.

Exploration of the adjoining *Sturt Palaeochannel Project* provides Pegasus with a highly prospective regional target for both primary uranium deposits and an extensive array of untested, potentially uraniumiferous palaeochannels defined by Landsat imagery.

The *Giant Placer Project* targets a potential gold resource hosted by an auriferous quartz-bearing ‘gravel plain’ placer generated by deep chemical weathering of the auriferous Halls Creek Group during the Tertiary. The placer is world class in dimension and dwarfs all previous placer discoveries in Australia.

### Geological Rationale

During the Late Cretaceous - Early Tertiary, deep chemical weathering resulting from a humid climate, affected much of the Kimberley for a period estimated at up to 50 million years.

Considerable depths of precious mineral bearing rocks were converted to clays and lateritic profiles liberating substantial tonnages of gold and heavy minerals.

In the project area at that time, geological considerations suggest the regionally extensive auriferous Halls Creek Group rocks were part of the Sturt Drainage Basin. The active Sturt river system transported the easily suspended clays (generated by the deep chemical weathering of the host rocks) to the distant Lake Gregory Basin leaving the heavy non reactive component (gold, tin/tantalite and auriferous vein quartz) to accumulate and concentrate in the Sturt river valleys as placers and on the adjoining Canning Plains (in blanket form) as a ‘gravel plain’ giant placer.

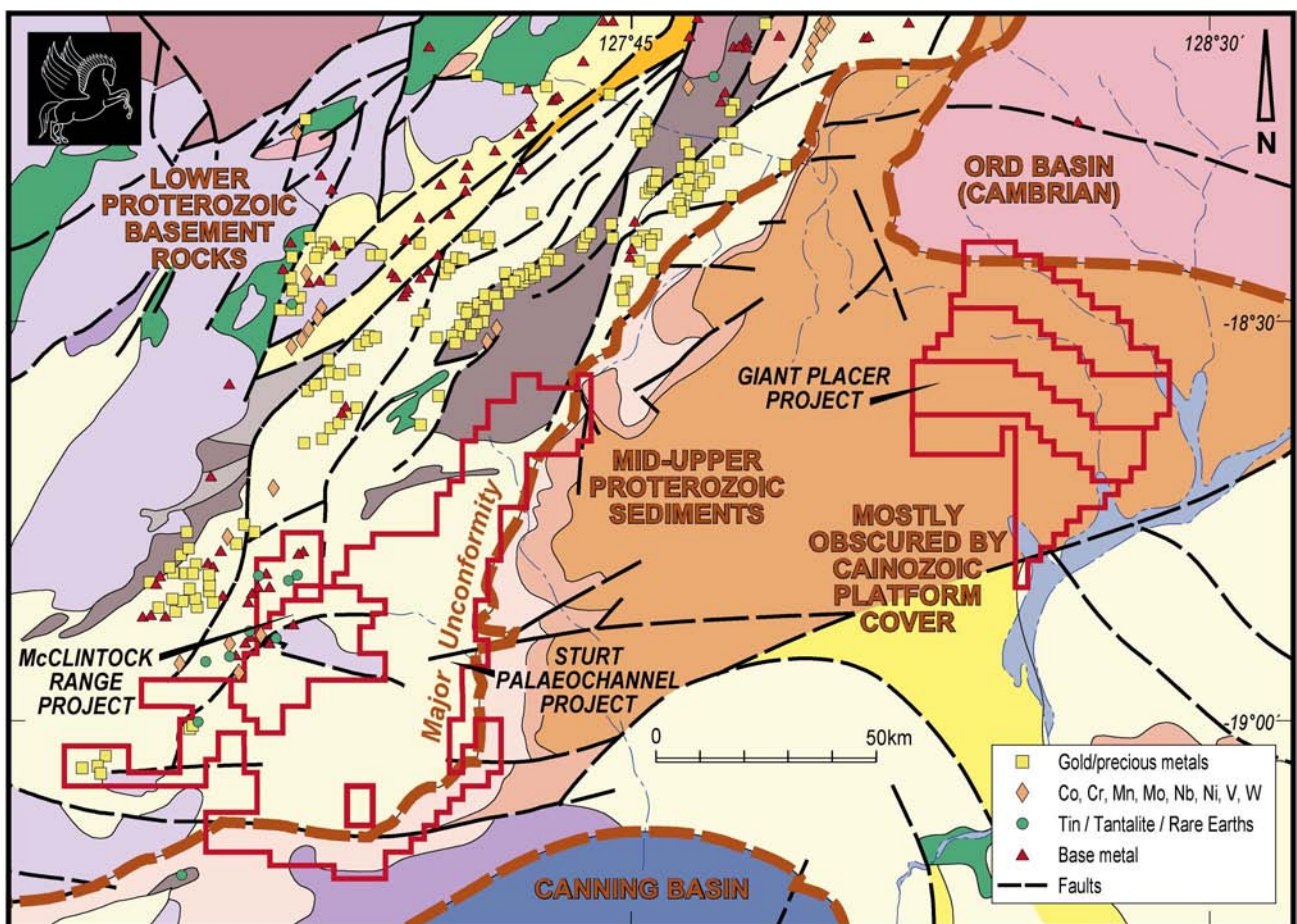
In the late Tertiary, land-surface tilting resulted in ‘ponding’ of the upper Sturt system, concealing part of the giant placer under a veneer of ‘black soil’ and lateritising other exposed sections.

Lowering of sea levels resulted in rejuvenation of the Ord and Fitzroy Rivers, encroachment on the ancestral Sturt Plateau and river capture of the upper Sturt tributaries which have directed drainage to the ocean in recent times.

With changing climatic conditions and an increasingly arid climate, the upper Sturt drainage dried up and became terminal. Carbonate was leached from the underlying rocks and re-precipitated as calcrete in the placer bearing palaeochannels. Similarly, uranium leached from adjacent and underlying uraniumiferous granites and gneisses is believed to have been co-precipitated in the palaeochannels providing a multi-commodity target.

Dominant easterly winds and an increasingly arid climate has concealed the palaeochannels and placers under a veneer of red brown aeolian soils and dunes in the south and central (lateritised) sections.

Figure 2 is a simplified geological plan of the regional setting of the Project areas.



**Figure 2 SIMPLIFIED REGIONAL GEOLOGY**

As shown on Figure 2, the more exposed Lower Proterozoic rocks which contain multiple mineral occurrences (as defined by overlaid Geological Survey of WA data) are separated from the overlying younger (Mid-Upper Proterozoic) sedimentary sequences by a major unconformity. This provides another prime uranium target.

To the southeast there is little outcrop, as the area is extensively covered by recent sediments and aeolian sands. In this area the Tertiary drainage channels and placers are mostly covered, yet their presence is evident on satellite derived imagery (see Figure 3).

Figure 3 shows the interpretation of the Tertiary palaeodrainage, now mostly concealed by the more recent cover. The mineral occurrences emphasise the source rocks from which the drainage originated over some 60 million years. Mineralised granites provide the source for palaeo uranium deposits and gold and base metals occurrences are widespread in the Proterozoic rocks.

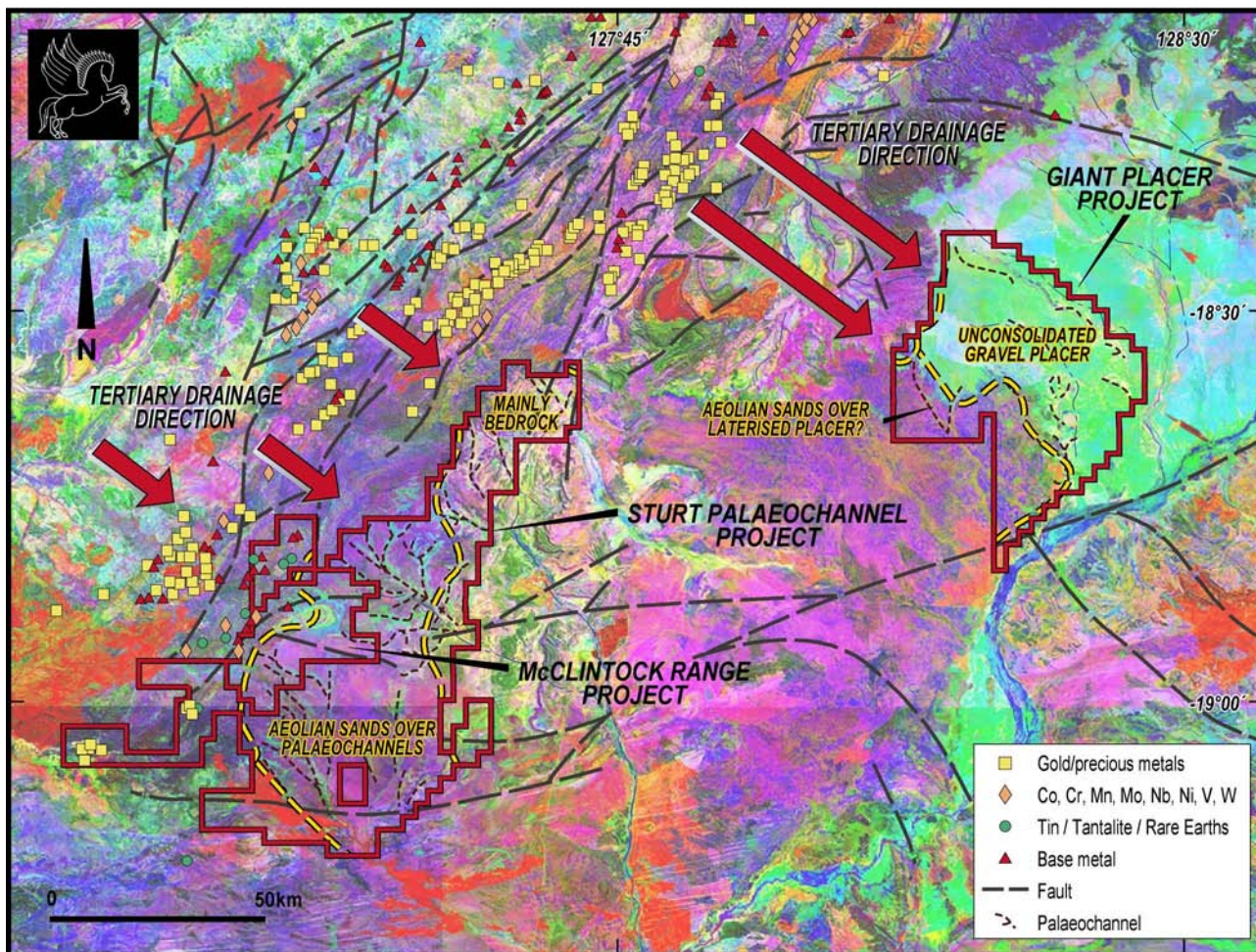


Figure 3 LANSAT IMAGE INTERPRETED

### McClintock Range Project

The *McClintock Range Project* area targets primary uranium and gold-tin-tantalite-tungsten-molybdenum mineralisation associated with skarns, pegmatites and radioactive mineralising granites of the eastern zone of the Lamboo Complex.

Regional exploration completed since the mid 1960's has identified more than 20 prospects prospective for various combinations of uranium, gold, base metals, molybdenum, tantalum, tungsten and tin within the exposed western section of the tenement area. Extensions of the same geological structures and host lithologies continue to the east beneath a veneer of aeolian sands and fluvial cover.

Untested palaeochannels draining the uraniumiferous Esaw monzogranite (exhibiting visible superficial green/yellow uranium oxides) offer potential for economic uranium deposits

### Sturt Palaeochannel Project

Ground surveys within the *Sturt Palaeochannel Project* area have determined the existence of uraniumiferous granites, uraniumiferous lower Proterozoic gneisses, black shale/graphitic schist bearing shelf facies sediments and Carpentarian sandstone/Lower Proterozoic unconformities all of which offer potential for undiscovered primary uranium deposits and provide a fertile provenance area for Tertiary palaeochannel uranium deposits identified by Landsat imagery.

Numerous radiometric anomalies flanking the Sturt Plateau drainage divide highlight the potential for uranium mineralisation within the palaeochannels.

The palaeochannels trend southeast under cover for several kilometres through the tenements and there are several of them shown on Figure 3.

Widespread gold and tin/tantalite/tungsten stream anomalies registered by previous explorers from streams encroaching on the ancestral Sturt Plateau land surface highlight the mineral potential of extensive concealed (sand covered) Sturt drainage placers generated by the secular deep chemical weathering of the Dockrell gold and tin/tantalite deposits during the Late Cretaceous and Tertiary.

### **Giant Placer**

The *Giant Placer Project* tenements cover the unconsolidated part of an auriferous giant placer generated by the ancestral Sturt palaeodrainage following deep chemical weathering and Tertiary lateritisation of the auriferous Halls Creek Group. The presence of gold in the more consolidated part of the placer has been confirmed from regional sampling by a diamond explorer during the 1980s.

The placer is believed to represent one of the world's largest untested potentially auriferous gravel plain placers and dwarfs all previous placers discovered in Australia.

The placer conforms with the "gravel-plain" categorisation and is in part structurally similar to the Californian dredging fields of Hammonton and Folsom. Each of these fields has produced around 4 million ounces of gold.

Auriferous mineralisation within the Halls Creek Group (the placer provenance area) offers a close parallel to the Klondike Schists of the Yukon, with deep chemical weathering during the Tertiary providing the capacity to generate substantial tonnages of free gold.

The placer is concealed in the main part beneath a veneer of Mitchell Grass covered black soil, generated in recent time from "ponding" when the land surface tilted to the north.

It represents a valid exploration target with the capacity for the discovery of world class gold and heavy mineral resources.

The presence of uranium in this system should not be discounted.

### **The Acquisitions**

The majority of the tenement package was acquired from geologist Peter Lewis who has extensive Kimberley expertise gained since the 1960s.

Pegasus has purchased from Lewis all the issued capital of Placer Resources Pty Ltd which becomes a wholly owned subsidiary of Pegasus. The consideration is the issue of 3,500,000 Pegasus shares which will be voluntarily restricted from trading until 31 March 2008.

At the same time Pegasus has agreed to farm-in to the McClintock Range tenements held by the Lewis-owned Kimberley Mining Pty Ltd (KMPL).

Pegasus may earn up to a 60% interest in these tenements by spending \$400,000 prior to 11 April 2009, including spending a minimum of \$100,000 prior to 11 April 2008, before it may withdraw. Pegasus can elect to spend \$250,000 to earn 50% and then a further \$150,000 to earn 60%. When Pegasus has earned its interest of either 50% or 60%, KMPL may elect to contribute, dilute its interest, or convert to a 20% interest free carried to completion of a Bankable Feasibility Study. Pegasus has reimbursed \$100,000 prior expenditure including the costs of a recent tenement application made by Placer.

The Sturt Palaeochannel Project & McClintock Range Group Project tenement holding is to be completed by the assignment by Daktyloi Metals Pty Ltd of two adjoining exploration licence applications for the reimbursement of the direct costs associated with their applications. Daktyloi Resources Pty Ltd is an associate of one of the Pegasus Directors and the applications were made in December 2006, prior to the listing of Pegasus.

### The Vendor

Peter Lewis graduated from the University of WA in the late 1960s with a Bachelor of Science Degree and Double Major in Geology. He started his geological career the in Kimberley with Pickands Mather (International) before teaming up with Australia's then largest privately owned Merchant Bank to pursue a series of jointly owned exploration ventures.

Subsequently, both as an individual and via wholly owned entities, he has participated in joint ventures with a number of the world's largest mining companies, including BHP and Rio Tinto.

He currently holds a large portfolio of exploration properties throughout the Kimberley and Northern Territory targeting a diverse range of commodities. He also holds an extensive geological and geophysical database covering much of the Kimberley Division to which Pegasus has access.

Lewis will continue as an exploration consultant for Pegasus for its new Kimberley projects.

### Tenement Schedule

PROJECT	Exploration Licence	Number of Blocks	Holder or Applicant	Grant Date	Annual Minimum Expenditure Commitment
McClintock Range	E80/3250	65	Kimberley Mining Pty Ltd	11/04/2006	\$65,000
	E80/3374	9		11/04/2006	\$20,000
Sturt Palaeochannel	E80/3612	70	Placer Resources Pty Ltd	12/03/2007	
	E80/3613	70		Application	
	E80/3614	70		Application	
	E80/3883	200		Application	
	E80/3827	42	Daktyloi Metals Pty Ltd	Application	
	E80/3829	22		Application	
Giant Placer	E80/3616	70	Placer Resources Pty Ltd	12/03/2007	\$70,000
	E80/3617	70		12/03/2007	\$70,000
	E80/3618	70		12/03/2007	\$70,000
	E80/3619	70		12/03/2007	\$70,000

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