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Australian Stock Exchange Limited (ASX)  
Company Announcements Platform

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June 2008 – QUARTERLY ACTIVITIES REPORT

HIGHLIGHTS

*WYOMING, USA - LANCE URANIUM PROJECTS*

- Revised exploration target is 39-60 million short tons at 0.05-0.07% eU<sub>3</sub>O<sub>8</sub> for between 50-76 million pounds of U<sub>3</sub>O<sub>8</sub><sup>1</sup>
- Drilling is scheduled to commence in September 2008 to convert historic resources to JORC compliant status
- Senior environmental professional appointed to lead the baseline monitoring and permitting process which commenced during the quarter
- Independent engineering expert appointed to review the hydrologic, process and production data generated by the historic pilot plant

*SOUTH AFRICA – URANIUM / MOLYBDENUM EXPLORATION*

- New radiometric uranium anomalies identified at all six Prospecting Rights comprising the Karoo Project in South Africa
- Potential to extend existing historic uranium resources
- Field inspections have commenced to prioritise targets for drill testing

*CORPORATE*

- Cash at bank at the end of the Quarter was \$5.13 million.

## WYOMING, USA – LANCE (SUNDANCE) URANIUM PROJECT

[Peninsula Minerals 100%]

### Revised Exploration Target Sizes

In June 2008, independent consultants World Industrial Minerals (**"WIM"**) completed a thorough re-interpretation of the historic resources at the Lance Projects. This process involved correlation of mineralised sands and construction of mineralisation outlines over the thirteen project areas defined by historic drilling. The mineralised outlines were constructed using realistic cut-off levels for grades and thickness so that an objective estimation of the exploration target size for each Project could be determined. This assessment has facilitated prioritisation of Projects in terms of the development schedule for the planned recommencement of ISR mining.

The Ross Project (**"Ross"**), due to its high density of existing drilling and previous hosting of the ISR Pilot Plant (now since fully rehabilitated) in the late 1970's, has been identified as the primary production centre with a revised Exploration target of 6.35-9.52 million short tons at 0.05-0.07%  $eU_3O_8$  for 8-12 million pounds of  $U_3O_8$ <sup>1</sup>. See Figure 2.

The Barber Project (**"Barber"**) located 18km (18.2 miles) south of Ross and seen as a second production centre, has a revised exploration target of between 2.60-3.90 million short tons at 0.07–0.09%  $eU_3O_8$  for 4-6 million pounds of  $U_3O_8$ <sup>1</sup>.

The revised exploration target within and between the remaining 11 Projects is 30.2-46.8 million short tons at 0.05–0.07%  $eU_3O_8$  for 38–58 million lb  $U_3O_8$ <sup>1</sup> giving a global exploration target for the Lance projects of 39-60 million short tons at 0.05-0.07%  $eU_3O_8$  for between 50-76 million pounds of  $U_3O_8$ <sup>1</sup>.

This significant potential is largely a result of the vertical stacking of the roll fronts which multiplies the chances of mineralisation per km of strike length. In addition drill density surrounding the Projects is very low and those holes drilled were often at insufficient depth to test the deeper roll front positions. Follow-up drilling on many of the widely spaced holes that did intersect mineralisation was minimal, all factors indicating significant upside potential in these areas through further work.

The drilling, set to commence in September 2008, will be the first phase of an extensive program which is designed to bring both the Ross and Barber Projects to JORC resource status prior to the commencement of a bankable feasibility study in mid 2010.

The completion of this intensive review and interpretation of the historical data by WIM has provided the Company with further confirmation of the potential economic viability of an ISR Operation at the Lance Project and supports the Company's mission statement of becoming a 1.5m lb per year  $U_3O_8$  producer with production within one year of permitting.

### Key Development and Engineering Appointments

The environmental monitoring program at Lance commenced with the appointment of senior environmental professional Pat Gochnour, a provider of environmental services to the mining industry since 1981. Mr Gochnour's areas of expertise include environmental audits, reclamation planning, environmental contingency planning, remediation and environmental litigation support. Past clients have included Phelps Dodge, Barrick Gold and Lac Minerals.

Mr. Gochmour's appointment marks the commencement of an environmental monitoring and baseline program at the Lance Projects which is an essential requirement of the mine permit approval process.

Peninsula also commissioned Doug Christopherson, Senior Engineer with independent consultants World Industrial Minerals to conduct a thorough review of all of the historic hydrologic, process and production data generated in the historic ISR Pilot Plant, located on recently acquired mineral tenements at Lance's Ross project. With more than 32 years experience as a mining engineer, Mr Christopherson has completed a number of plant/mine commissioning feasibility studies, ore reserve estimates and environmental assessments.

Mr Christopherson has commenced a review of the significant amount of historic data related to the ISR Pilot Plant, which previously operated at the Ross project, and was designed to produce 40,000 lb U<sub>3</sub>O<sub>8</sub> per year and operated during 1978 and 1979. The information reviewed will include historic assay results, environmental baseline studies and successful aquifer restoration and should prove invaluable to Peninsula in reducing the time required for State and Federal permitting for a planned new ISR mining operation.

The appointment of these key engineering and environmental personnel is an important step in Peninsula's stated aim to progress the Lance Projects to a production decision as soon as practicable.

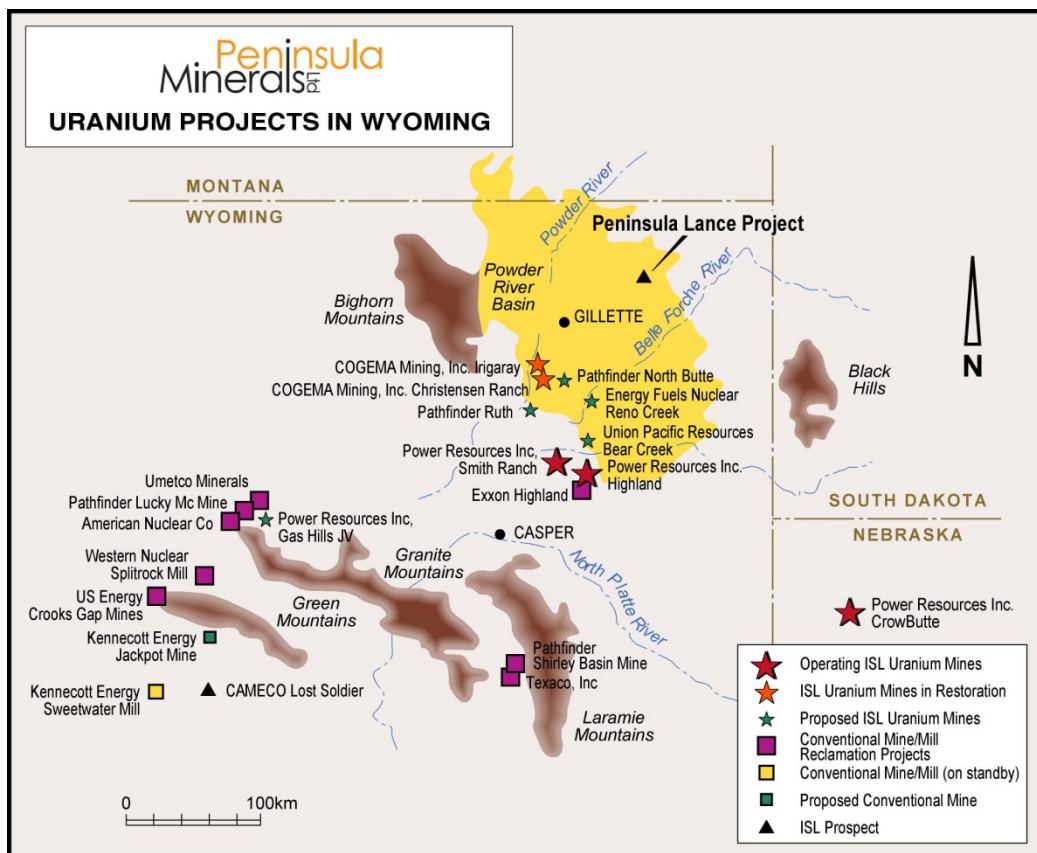


Figure 1: Lance Project

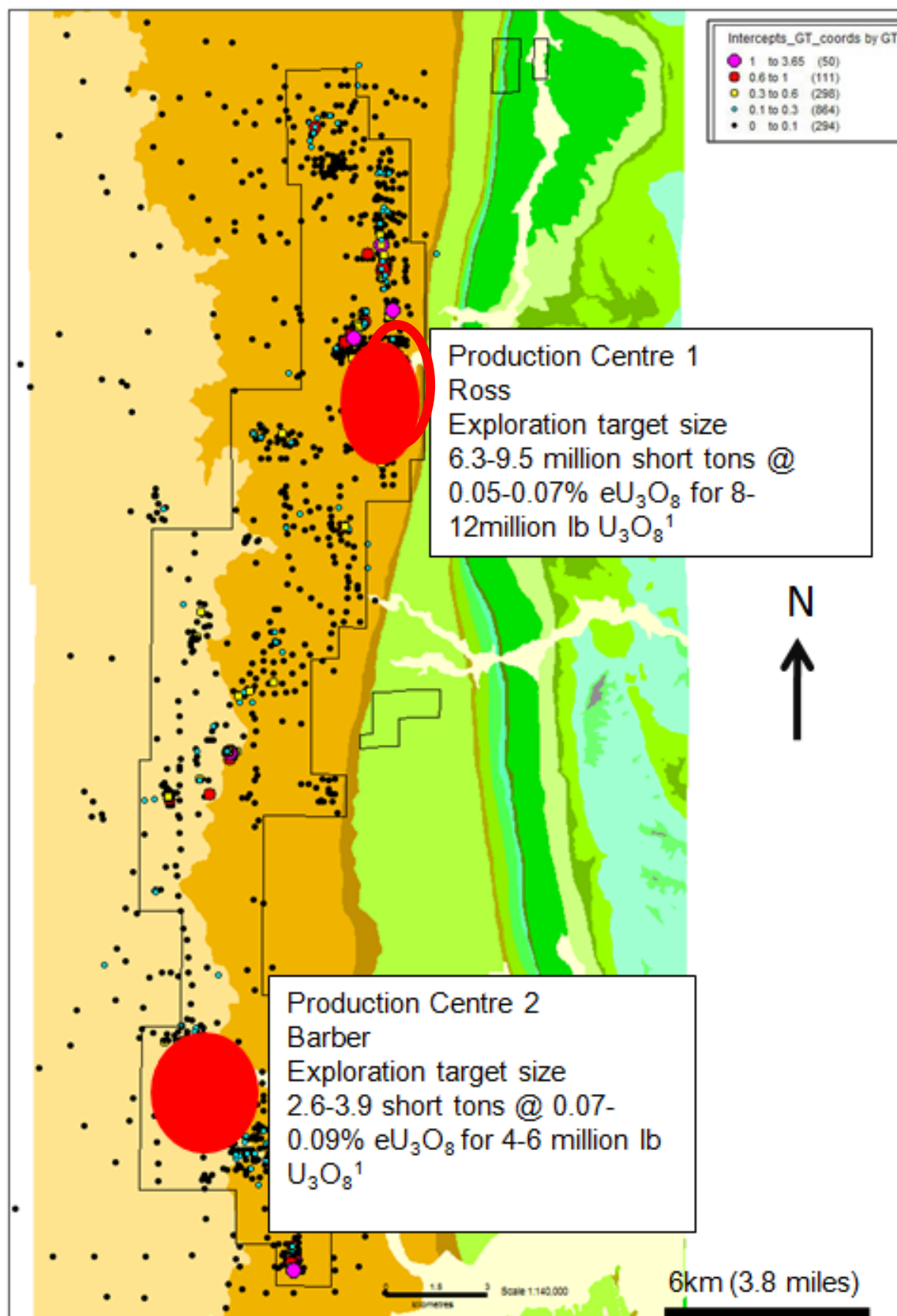


Figure 2 Ross and Barber Target Sizes and Planned Production Centres with historic drilling.

## SOUTH AFRICA – URANIUM / MOLYBDENUM EXPLORATION

[Peninsula Minerals 74% / BEE Group 26%]

A comprehensive review of the data from the detailed airborne radiometric survey covering Peninsula Minerals Limited's six uranium and molybdenum properties in the Karoo region of South Africa was completed during the quarter. New areas of uranium anomalism were identified at all six tenements and it is expected that several high priority drill targets will be defined following the ground follow-up work which has recently commenced.

### Radiometric Survey Anomaly Selection

The Radiometric Survey covered a total area of 1,985km<sup>2</sup>, with a flight line spacing of 100 metres and a nominal 25m flight height. This compares with the original South African Government Geological Survey (now Council for Geoscience) completed over the region in 1976, which was flown on 1km spaced lines at a 100m flight height. The closer line spacing, lower sensor height and improved instrument sensitivity have resulted in the identification of a large number of areas with an elevated uranium response (best response was 52 times background).

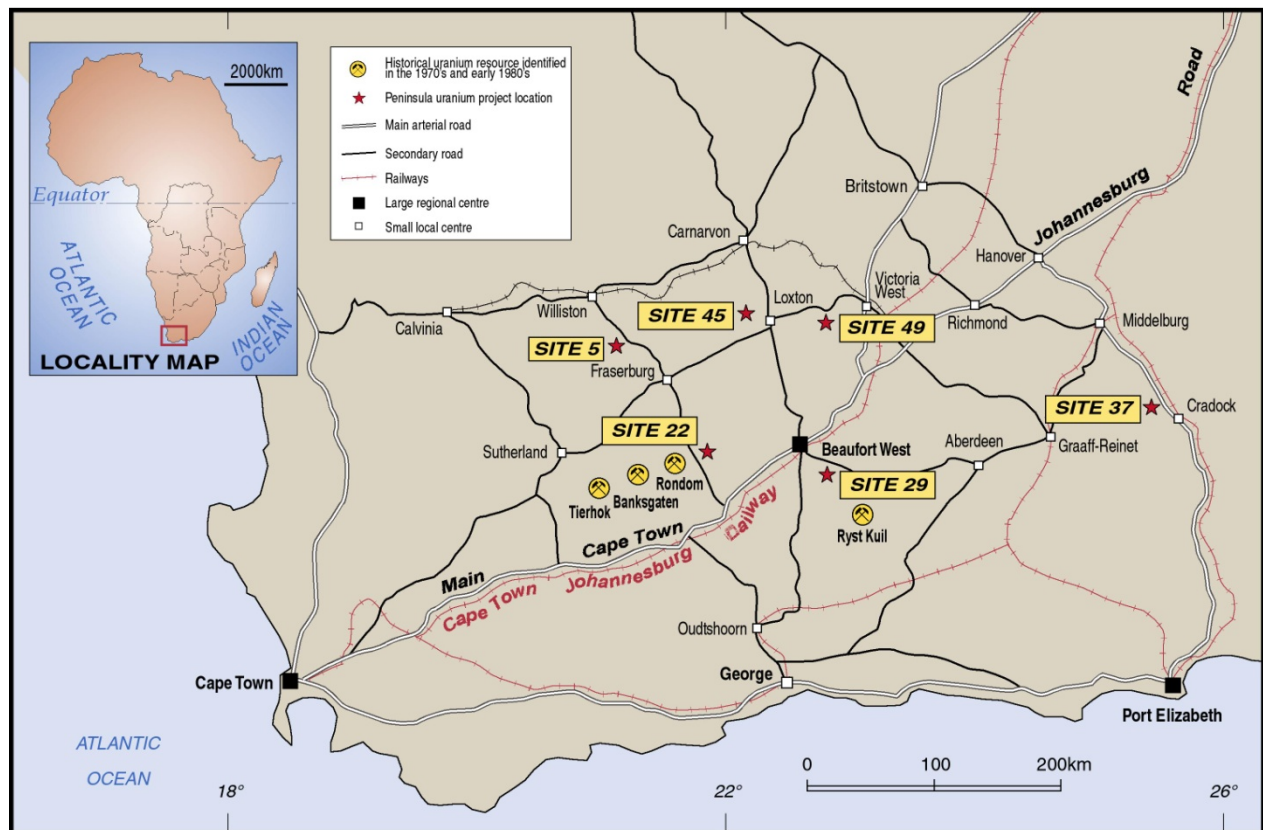


Figure 3: South Africa - Uranium /Molybdenum Prospect Site Locations

Ground checking of the anomalies has commenced to put the anomalies into geological and topographic context. As radiometric surveys can only test the very shallow surface environment (a few cm) a uranium mineralised body covered with a thin layer of sand or soil will give a minimal response in the uranium channel. Thin overburden can also dilute a uranium response and make it very weak, highlighting the importance of placing anomalies in context.

## Radiometric Survey Highlights

### Site 22

Site 22, as shown in Figure 3, is located approximately 85km west of Beaufort West. This site contains a historic resource known as GT-7 which was defined by JCI through the completion of 718 drill holes in the 1980's. The Radiometric Survey has identified several new uranium anomalies which appear to lie along strike from GT-7. The effectiveness of the Radiometric Survey was highlighted by the fact that the main historical resource area, which is slightly exposed at the base of the main escarpment, was clearly identified as a uranium anomaly on three consecutive flight lines (300m strike length) at a level of over three times background.

Placed in this context the new anomalies, which form clusters in the western half of the tenement, are particularly exciting. Each main anomaly consists of values greater than 0.5 times background on at least two adjacent flight lines. The maximum level in these clusters of anomalies is 5.8 times background. The anomalies appear to be increasing in elevation to the west and may indicate gentle folding of the prospective stratigraphy. See Figure 4 below.

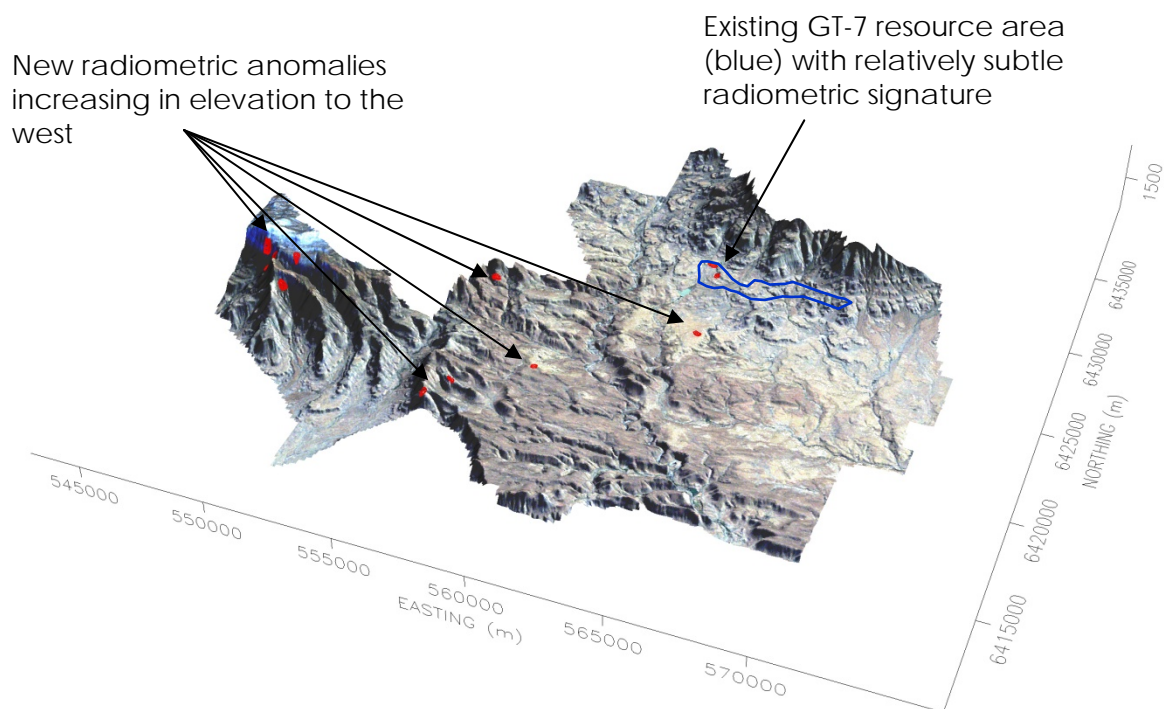


Figure 4: Site 22 Radiometric U anomalies overlain on Landsat image and topography

### Site 29

Site 29, centred approximately 8km southeast of Beaufort West, also returned some very strong anomalies, and the proximity of radiometric anomalies to an historic resource (drilled by Union Carbide in the 1970's) provides encouragement that additional uranium mineralisation is present on the Prospecting Right. The existing Council for Geoscience U/Mo anomalies were again detected over a 5km WNW trend; however several additional and stronger anomalies were identified to the west, south and east of the original anomalies. Due to the extra resolution of the recent Radiometric Survey the existing anomalies have also been more clearly defined, with two very strong anomalies now extending for up to 400m



along strike. Individual radiometric values within the anomalies are highly elevated, with values greater than 20 times background being common, with a maximum of 52 times background. The density and intensity of these anomalies make Site 29 a very high priority for on ground follow-up.

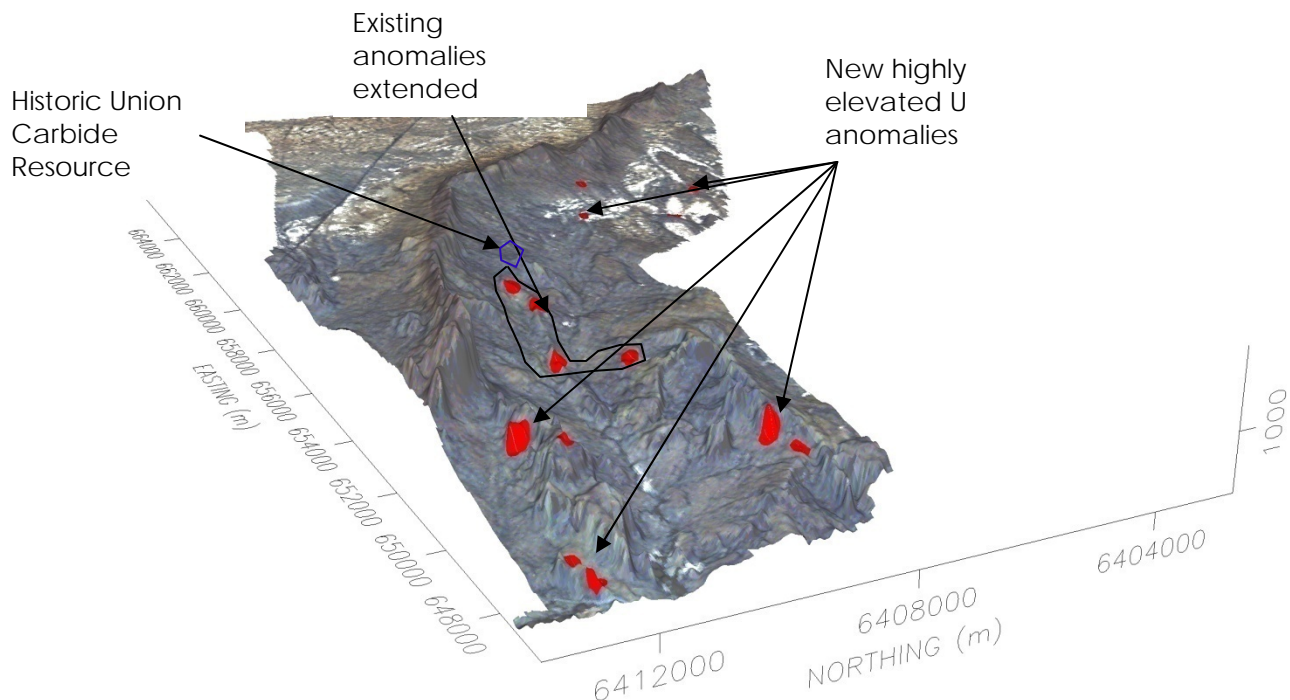


Figure 5: Site 29 Radiometric U anomalies overlain on Landsat image and topography.

#### Site 5

The Radiometric Survey over Site 5, located approximately 20km NW of Fraserburg, expanded on the previous single U/Mo anomaly defined by the Council for Geoscience during the 1980's. No exploration drilling targeting uranium has been conducted in this area previously, and the discovery of an additional three clusters of new, strong anomalies which have been identified in the central portion of the tenement is highly significant. The anomalies form numerous scattered clusters that are consistently greater than two times the background level, with a maximum of 6 times background. The original anomaly, which has only had a few rock chips samples collected by the Council for Geoscience (which were anomalous in U and Mo) gave a peak 11 times background.

Field checking of the anomalies is in progress, with a portable scintillometer being used to confirm the intensity and location of the anomaly on the ground and samples will be collected for geochemical assay. Each anomaly will then be mapped geologically and prioritised for drill testing by percussion or diamond core drilling.

The success of the Radiometric Survey in identifying new areas of uranium mineralisation has enhanced the potential of the Karoo Project to host significant economic resources of uranium and molybdenum.

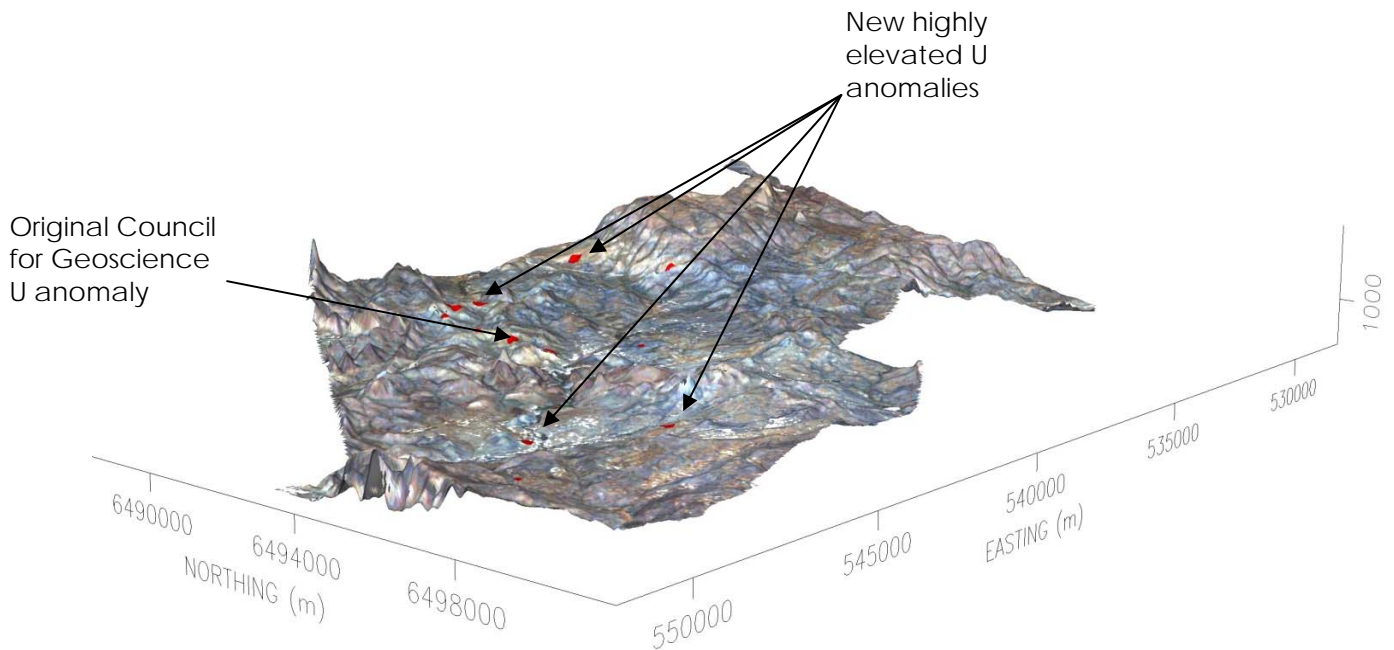


Figure 6: Site 5 radiometric U anomalies over Landsat image and topography

### Certificates of Registration

The pending Certificates of Registration for Sites 5, 45 and 49 allowing the collection of samples for uranium assay were granted by The National Nuclear Regulator during the quarter.

### FIJI – RAKI RAKI GOLD PROJECT

[Peninsula Minerals 50% / Geopacific Resources NL 50%]

High gold in soil samples have been returned from hand auger drilling at both the Qalau Prospect and the Tataiya Prospect. At the Qalau Prospect (Block C Area) soil samples with up to 6.60g/t Au have defined a north trending gold anomaly. At the Tataiya Prospect soil auger assays of up to 2.1g/t Au indicate the occurrence of a steep east dipping auriferous vein beneath soils to the west of the Tataiya vein. Previous drilling at both prospects has been ineffective in testing these targets.

#### Qalau Block C Area

Soil auger samples using a hand-held auger were collected from 1-3m depths at 5m intervals along 10m spaced grid lines at Grid C in the Qalau Prospect. Assay data for soil auger samples from Qalau Grid A and B were reported in early 2008 and these areas are located to the north of Grid C.

Block C covers a 100m x 100m area surrounding diamond drill hole DDHQ002 which was drilled by Geopacific in 2006 (Figure 7). A 1m interval of low grade mineralisation was intersected by DDHQ002 (1m @ 1.24g/t Au from 9-10m). DDHQ002 was oriented towards the SSE at a 60 degree dip.

The anomalous soil data indicate that a narrow (10-25m wide), north trending zone of gold anomalism occurs immediately to the west of the trace of DDHQ002. This hole was



drilled parallel to the trend of the anomaly and was unlikely to have intersected the bedrock source of the anomaly which most likely has a vertical or steep west dip.

The soil gold anomaly has not been closed to the north and south and further auger sampling is planned to extend the grid in these directions. Trench sampling is planned across the high grade area to enable assessment of bedrock geology and mineralisation. Follow-up drilling is proposed to further test the anomaly.

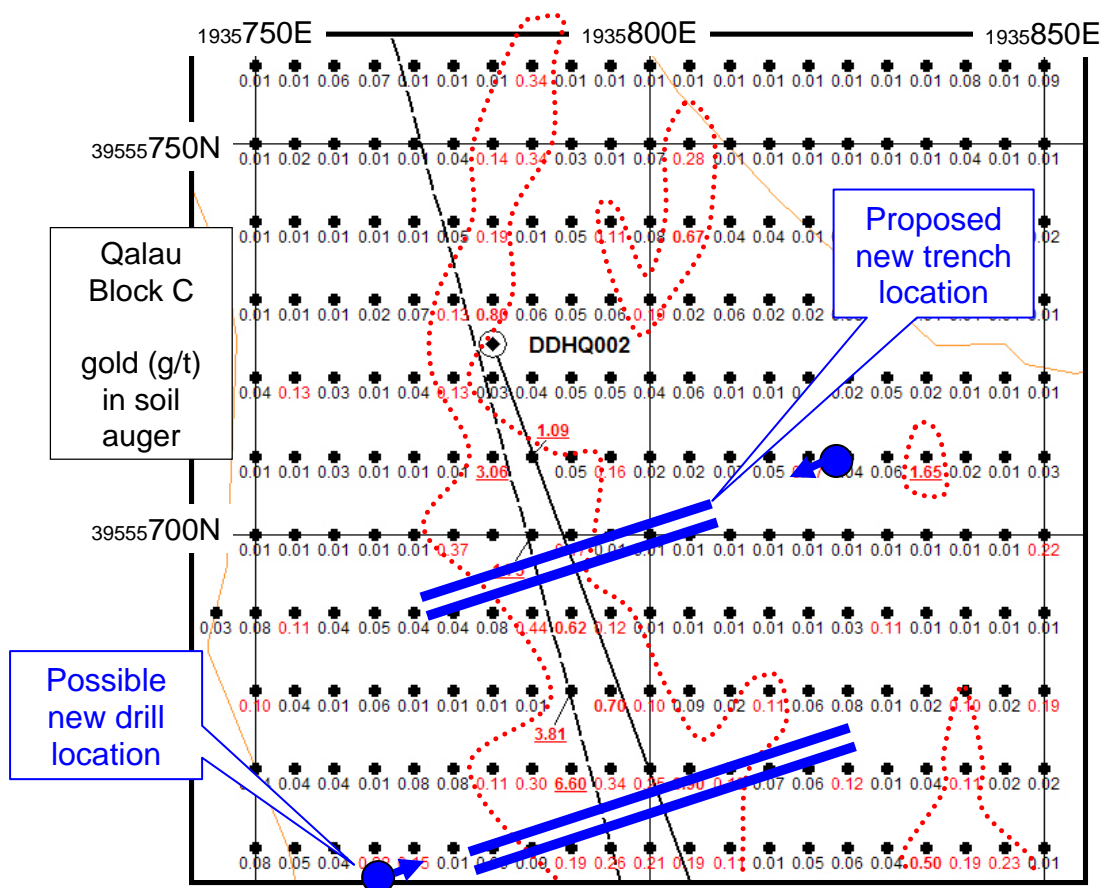


Figure 7: Gold in soil anomaly at Qalau (Grid C) area with location of DDHQ002 (2006), proposed follow-up trench locations and possible follow-up drill holes shown in blue.

## Tataiya Prospect

Six traverse lines of soil auger holes were completed at the Tataiya Prospect where the Tataiya vein and associated mineralised structures and veins extend for a strike extent of over two kilometres. The soil auger sampling has confirmed the location of the previous gold in soil anomalies and has also defined a new gold vein zone several hundred metres to the west of the Tataiya vein. Soil auger samples at the new western vein range between 0.81-2.1g/t Au and the mineralisation appears to extend for at least 400m along trend.

Debris of small mineralised quartz vein fragments were collected from the northern end of the Tataiya Vein where previous Geopacific work has located mineralised vein material with up to 350g/t Au and 1.3% Cu. Repeated gold assays on these fragments (sample 13724) range between 59-64g/t Au. During the next few weeks costeaning across this portion of the Tataiya vein is planned and this may determine the extent and orientation of the high grade source rocks.

Previous exploration drilling at Tataiya has not adequately tested the vein systems since most veins appear to be dipping steeply towards the east and sub parallel to the direction of the drill holes. Trenching across the main vein systems and follow-up drill testing is planned.

## **SOUTH AUSTRALIA EXPLORATION PROJECTS**

### **Uranium Access Agreement - Roopena (EL 3236, 3443) and Gibraltar (EL 3608, 2972) Joint Ventures**

[Peninsula Minerals 100%, Toro earning up to 70%]

#### Gibraltar and Partridge Range Joint Venture

Toro Energy informed the Company of their withdrawal from the joint venture on 24 July 2008. No exploration was undertaken during the quarter.

#### Roopena Joint Venture

No exploration was undertaken during the quarter.

### **Uranium Tenements Acquired from PacMag**

#### Olary and Olary North Project (EL 3838, EL 3849)

[Giralta Resources 100%, Peninsula Minerals earning uranium rights up to 75%]

No exploration was undertaken during the quarter.

#### Worlds End Project (EL 3559)

The project was surrendered during the quarter.

In order to consolidate focus on the advanced Lance and Karoo projects the Company is looking at options to farm out or sell the South Australian and Western Australian uranium projects. This will ensure funds are directed to the two projects most likely to develop uranium production in the short to medium term

## **CORPORATE**

### **Cash Position**

The Company's cash position at the end of the quarter was \$5.13 million.

### **For further information please contact:**

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The information in this report that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Jim Gullinger, Principal of independent consultants World Industrial Minerals who 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 as a Competent Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral

Resources and Ore Reserves'. Mr Guillinger consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The review of exploration activities and results relating to the RakiRaki project contained in this report is based on information compiled by Dr Ian Pringle, a Member of the Australasian Institute of Mining and Metallurgy. Dr Pringle is the Managing Director of Geopacific Resources NL and also a Principle of Ian J Pringle & Associates Pty Ltd, a consultancy company in minerals exploration. He has sufficient experience which is relevant to the style of mineralization and types of deposits under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the December 2004 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code). Dr Pringle has consented to the inclusion in this report of the matters based on his information in the form and context in which it appears.

<sup>1</sup>Please note that the potential quantity and grade of the Exploration Targets in this report are conceptual in nature, that there has been insufficient exploration to define a Mineral Resource and that it is uncertain if further exploration will result in the determination of a Mineral Resource.

Disequilibrium Explanatory Statement: eU3O8 refers to the equivalent U3O8 grade. This is estimated from gross-gamma down hole measurements corrected for water and drilling mud in each hole. These results are provisional upon the application of calibration correction factors which are determined from geochemical analysis. Geochemical analysis may show higher or lower amounts of actual U3O8, the difference being referred to as disequilibrium. All eU3O8 results above are affected by issues pertaining to possible disequilibrium and uranium mobility which should be taken into account when interpreting those pending confirmatory chemical analyses.