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**QUARTERLY ACTIVITY REPORT  
FOR THE PERIOD ENDED 30 JUNE 2008**

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- **Soil sampling at the Chilean Llamara and Cerro Soledad projects provide highly encouraging results, with visible uranium mineralisation seen throughout the trenches**
- **Drilling planned to commence in August 2008**
- **The Company had a \$6.54 million cash balance at 30 June 2008**

**URANIUM**

**Chile and Peru - Exploration Update**

The Company continued exploration on the King Energy Uranium Joint Venture in northern Chile during the quarter. Exploration included trenching over uranium anomalies defined at the Llamara and Cerro Soledad projects, mapping and sampling of trenches and the completion of large scale radiometric surveys at the Salar Grande and Pampa projects.

**Llamara**

Assays from soil samples taken during the radiometric survey at Llamara were returned during the quarter. The samples were taken from a selection of locations which gave instrument readings of  $>20\text{ppmU}^1$ . Results are highly encouraging with the 39 soil samples returning assays from 2 – 454ppmU with an average of 60ppmU.

The soil samples were analysed using both partial and full acid digestion techniques and also by X-ray fluorescence (“XRF”). These showed that the uranium minerals are highly soluble as anticipated. The assays were also independently checked by the Chilean Atomic Energy Commission (“CCHEN”). The XRF technique has been selected as the preferred technique for future analyses.

A total of 5 trenches were excavated over the most significant anomalies identified from the radiometric survey. The trenches were mapped in detail at 1:100 scale and sampled at 5m intervals. Assays from this sampling are awaited. Visible uranium mineralisation was observed in all trenches as carnotite and other as yet unidentified brown-green uranium minerals. Mineralisation was shown to be hosted in a range of rock types including diatomite, calcareous mudstone, tuffaceous sediments, sandstones and cherts. Mineralisation occurs as fracture coatings and fillings, as disseminations within the host rocks and filling voids in tuffs and diatomite. There is a strong correlation with the presence of carbonaceous material and the mineralisation.

The development of mineralisation in a range of rock types and habits is very encouraging in terms of potential tonnage of mineralisation as the mineralisation is not limited to specific sites.

Drilling of the Llamara anomalies is planned to commence August 2008 with 1000m of shallow reverse circulation percussion drilling and down hole logging using a differential gamma ray spectrometer probe.

### **Cerro Soledad**

Assays from soil samples taken during the radiometric survey at Cerro Soledad were also returned during the quarter. As at Llamara, the samples were taken from a selection of locations which gave instrument readings of  $>20\text{ppmU}^1$ . Results were similarly encouraging with the 46 samples returning assays from 8 - 315ppmU with an average of 53ppmU.

A total of 6 trenches were excavated over the most significant anomalies identified from the radiometric survey. The trenches were mapped and sampled as described for the Llamara programme. Assays from this sampling are awaited. Visible uranium mineralisation was also observed in all trenches as carnotite and other as yet unidentified brown-green uranium minerals.

As with Llamara, mineralisation was shown to be hosted in a range of rock types similar to Llamara although rock types at Cerro Soledad tend to be more argillaceous, and diatomite is not dominant lithology. The distribution and nature of mineralisation however is similar to Llamara and equally as encouraging.

Drilling of the Cerro Soledad anomalies is also planned to commence August 2008 with 1000m of shallow reverse circulation percussion drilling and down hole logging using a differential gamma ray spectrometer probe.

### **Salar Grande**

A total of 12km<sup>2</sup> of grid radiometrics were completed over the Salar Grande tenements using a differential spectrometer at 100 x 50m spacing with infill over anomalous areas at 50 x 25m. The survey covered previous anomalies which were identified and trenched by Essex Minerals in the late 1979-1980.

The survey has identified two strongly anomalous zones of uranium anomalism at greater than the 90th percentile level of 900 x 200m and 550 x 250m. Wind blown cover is much deeper at Salar Grande than at Llamara and Cerro Soledad resulting in lower values and leaving the anomalies unclosed. Soil sample results from areas of higher values are awaited. Essex's trenches are located within these zones. Mineralisation exposed in the trenches is associated with blue halite, the colour due to changes in the lattice structure of the halite due to intense radiation according to studies by CCHEN.

Total gamma counts from a trench within the southern anomaly returned values ranging from 750 - 9758 cps with equivalent uranium values of  $250 - 1015\text{ppmU}^1$ . Values from the northern anomaly in similar trenches returned instrument values of up to  $80\text{ppmU}^1$ .

## **Pampas**

Grid radiometrics have been completed over the Pampas project. Extensive trenching at this project was undertaken by Essex minerals during the early 1980's over several square kilometres. This data is in the process of being plotted and analysed. However extensive areas of visible uranium mineralisation has been noted on the surface during the survey and within the existing trenches.

## **Garin Viejo**

Uranium mineralisation in this prospect is associated with a breccia pipe with associations to the iron-copper-gold style of mineralisation typical of the Chilean Iron Belt. Mapping and sampling has been completed over the prospect but it is concluded that the extent of the breccia mineralisation is too small to warrant further work.

## **Forward Programme**

Exploration during the next quarter will involve the commencement of a 2000m drilling programme, the first stage of which will be 400m of drilling to test the strong anomalies identified to date at the Llamara, Cerro Soledad, Salar Grande and Pampa projects.

## **GOLD**

### **LEFROY GOLDFIELD**

During the quarter Lefroy was issued 4,145,748 ordinary shares in Beaconsfield Gold N.L. completing the sale of 100% of its Tasmanian gold exploration tenements to Beaconsfield.

The sale of the Tasmanian gold exploration tenements will allow Lefroy to concentrate all exploration effort on the Uranium exploration projects located in Chile and Peru whilst benefiting from any future production from the Tasmanian exploration tenements.

## **CORPORATE**

### **FINANCIAL POSITION**

At the end of the quarter Lefroy had a cash balance of \$6.54 million.

For further details 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 Mr Carl Swensson who is a Member of the AUSIMM. Mr. Swensson is a Director of the Company. Mr. Swensson 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". Mr. Swensson consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

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## **1 A Cautionary Note on Instrument Derived Uranium Concentrations**

Gamma ray detection instruments called differential gamma ray spectrometers have the ability to determine absolute levels of uranium, potassium and thorium in addition to measuring the total count rate of gamma radiation that simpler instruments such as scintillometers provide. The uranium concentrations determined by a differential spectrometer are termed “equivalent uranium” concentrations and are expressed as “ev ppm U”. Equivalent uranium concentrations will only be reasonably accurate provided that the uranium decay in a particular environment is in equilibrium and there are no other contributing sources of gamma radiation such as the presence of radon gas.

Investors and potential investors should therefore interpret instrument derived uranium concentrations with some caution and only rely on final laboratory derived uranium assays to form an informed opinion.

The Chilean uranium projects are characterised by disequilibrium due to the young age of mineralisation. The relationship between the instrument derived values and the assay values from the same sites as indicated to date from soil samples taken at Llamara and Cerro Soledad projects is non linear and varies between areas.

Experience at the Llamara and Cerro Soledad projects to date shows a strong correlation between instrument derived values and assay values up to ~50ppm U. Above this level, assay values become increasingly greater than the instrument values until they are at least twice the value at 200ppm ev Uppm. More data is required before this relationship can be better quantified.