

31 October 2006

# QUARTERLY REPORT FOR PERIOD ENDED 30 SEPTEMBER 2006

# **HIGHLIGHTS**

## **EXPLORATION**

- CUX implemented its active exploration program primarily focussed on uranium with lesser emphasis on diamond and base metal targets during the quarter;
- Chilling Project (EL25076 and EL25078) targeting East Alligator type large, high grade unconformity style uranium orebodies as well as base metal targets:
  - O Uranium A review of data demonstrated the areas high uranium prospectivity. Previous explorers reported 11 rock chip samples above 500 ppm (0.05%) U with a maximum of 0.395% U<sub>3</sub>O<sub>8</sub>. Initial field exploration programs have been developed.
  - O The area lies about 20km south-south west of the Rum Jungle Mineral Field at Batchelor. This block of titles covers over 100 kilometres of structures in a setting which CUX believes to be highly favourable for unconformity- type uranium deposits.
- Charley Creek (EL24281, ELA 25230) targeting calcrete and Redox related palaeo drainage uranium targets:
  - Uranium Further research and helicopter reconnaissance on Charley Creek has shown that the uranium potential of the project area is high. Previous explorers reported numerous radiometric anomalies and rock chip samples up 0.228% U3O8.
  - O The area is considered very prospective for copper, nickel and/or platinoids. The Mount Hay layered ultramafic intrusive is analogous to the Merensky Reef in South Africa and the Stillwater Complex in USA.
- Crossland Creek, West Kimberley (E80/3143 and E80/3303) targeting diamonds and copper:
  - O Copper Assay results were received from pisolite sampling over a magnetic anomaly. These have revealed significantly anomalous copper values of up to 623ppm Cu that will require follow- up.
- Western Creek, NT (EL 23684) diamond targets:
  - O Diamonds: Results have been received from auger drilling of drainages. One sample contained four chrome spinels with favourable morphology and chemistry. Given the results, additional exploration licences were applied for at Western Creek and Lake Woods to cover possible extensions and favourable settings for diamond occurrences.
- Sylvester, Barkly Tablelands, NT (EL23683 and EL23685) diamond targets:
  - O Diamonds auger drilling was completed across interpreted drainage channels at the two Sylvester Project titles. Results are awaited.

# **CORPORATE**

• Plans are well advanced for the issue of a prospectus to raise additional exploration funds and list on the ASX.

# **EXPLORATION STRATEGY**

Crossland's exploration strategy is to pursue the discovery of major uranium deposits using the extensive uranium backgrounds and Northern Australia experience of Geoff Eupene, Bob Richardson and Bob Cleary. Their combined 80+ years experience together with the use of modern exploration techniques dramatically improve the likelihood of exploration success.

The key rationale for pursuing uranium exploration in Northern Australia is that the region is particularly prospective – i.e. the geology is favourable. The region hosts excellent deposits of uranium, such as Ranger, Jabiluka, Nabarlek, Koongarra, and Rum Jungle, for which it has a global reputation. It also contains world class deposits of diamonds (eg Argyle), base metals (eg Mount Isa-Cloncurry, McArthur River), and gold (eg Granites-Tanami, Tennant Creek).

Crossland started accumulating its uranium exploration portfolio in 2002 and commenced exploration in 2003.

CUX is actively negotiating on additional areas prospective for uranium.

The exploration of CUX's non-uranium targets saw more expenditure during the quarter for practical and tenement maintenance reasons. CUX strategy is to pursue non uranium targets that are identified on its tenement portfolio until such time as they can be upgraded for a subsequent separate IPO spin-off or otherwise dealt to advantage.

CUX does not propose to undertake any work on its KSL Yukon assets which remain in good standing. The future of those assets will be reviewed as local activity and conditions change.

During the quarter under review the activities of the Company have continued to escalate. Activity on the CUX tenement package accelerated, with a crew engaged full time in field work practically throughout the quarter as detailed below. A new scintillometer was purchased during the quarter and a down hole logger and associated hardware and software was ordered during the quarter for delivery in the December Quarter. This will enable a start to drilling of uranium properties when it arrives.

## **ACTIVITY SUMMARY**

## **Chilling District, NT**

CUX holds one granted Exploration Licence (EL23682) and three EL applications (EL25076-EL25078) in this district, which extends south-south west from the Rum Jungle Mineral Field at Batchelor, site of Australia's first major uranium mining project in the 1950s. Two of the applications (EL25076 and EL25078) were granted late in the quarter. A detailed airborne geophysical survey will proceed when the other applications, including EL22738, on which an agreement was reached last quarter, are granted. It appears that progress is being made on the processing of the outstanding applications. However, it is getting late in the season to complete an airborne survey, as weather conditions can adversely impact on the surveys. The surveys will proceed when the titles are all granted, then when weather conditions are suitable.

CUX has continuous coverage of over 100km of structures that extend from Rum Jungle, in a setting which CUX believes is favourable for Unconformity-type uranium deposits of the type that hosts all of Canada's newly mined uranium, as well as most of Australia's past production, including our largest producer, Ranger. Apart from a geological setting with many of the features required for uranium mineralisation, the area has responded positively to previous uranium exploration, with several recorded occurrences within and around the CUX holdings. Much of the area is covered in Middle Proterozoic sandstone of similar age to the Kombolgie Formation sandstone that caps the unconformity type uranium deposits in the Alligator Rivers Area. CUX notes that modern concepts of uranium exploration have not yet been exhaustively applied to this very interesting belt.

At the Soldiers Creek target area, previous explorers sampled numerous uraniferous hematite and hematite quartz veins in fracture zones in granites. 11 rock chips assayed over 500 ppm (0.05%) U with a maximum of (0.395%) U<sub>3</sub>O<sub>8</sub>. This highlights the presence of U mineralisation.

There are also base metal, gold and tin targets in the project area.

# **Charley Creek, NT**

On the Charley Creek area (EL 24281 and ELA 25230) CUX is targeting calcrete and Redox related palaeo drainage uranium targets: with copper, nickel and platinoids as secondary targets.

During the quarter, uranium exploration comprised further research and helicopter reconnaissance which has shown that the uranium potential of the project area is high. The area includes the Teapot Granite which is a quite radioactive unit which may shed uranium into the sediments that drain from it. The reconnaissance work confirmed the widespread high radioactivity of some phases of the granite. Literature search of old exploration reports has shown that secondary uranium minerals occur in fracture zones within the granite. This indicates that uranium from this granite can dissolve and migrate in surface waters. The basic rocks of the Mount Hay Granulite lie below the surface waters drainage channels. Vanadium present in these basic rocks can help to precipitate uranium as carnotite from surficial waters, so the setting seems to have potential for this to occur in the buried channels within the alluvial flats. Previous explorers reported numerous radiometric anomalies and rock chip samples up  $0.228\%\,U_3O_8$ .

The Charley Creek area is also considered to be very prospective for styles of mineralisation associated with layered basic intrusives (normally copper, nickel and/or platinoids). The Mount Hay layered ultramafic intrusive is present in the area. This intrusive may be analogous to the Merensky Reef in South Africa and the Stillwater Complex in USA which contain major platinoid group metal deposits. The magnetic patterns as well as field observations indicate that it is present at relatively shallow depth beneath the broad alluvial flats of the exploration licence. The area will be evaluated for both commodity types. The project area warrants a systematic exploration programme.

# **Crossland Creek, West Kimberley.**

At Crossland Creek, West Kimberley (E80/3143 and E80/3303) CUX is targeting diamonds, and copper mineralisation in association with a magnetic anomaly.

During the previous quarter, ground magnetometer traverses were completed in the central portion of the target area. This gave better definition of the shape of an apparently discrete anomaly with a form that is unclear in available airborne data. The anomaly appears to coincide with a very large area of veining and alteration in King Leopold Sandstone and Carson Volcanics. While more traverses, or a detailed airborne survey, are required to fully define the structure and depth of the source, there appears to be a possibility of drill targets at reasonable depth.

This and the surrounding areas of poor bedrock exposure have been covered by several long soil sampling traverses, using soil pisolites as a sampling medium. A subset of over 200 samples was submitted for selective leach extraction, followed by multi-element geochemical determination. Results from this subset of pisolite samples provided a good response for Cu and interesting results for some other elements. In light of the encouraging results these samples were re-analysed using a more complete extraction method, and the remaining samples from the vicinity of those that had responded positively were submitted. The re-analysis produced more coherent elevated results with values to 623ppm Cu, and this coincided with the peak of the magnetic anomaly as well as a large zone of alteration and veining which appears to stretch over an area over 5km long and several hundred metres wide. Further follow up work is planned this dry season to map the extent of the alteration zone and soil anomaly if weather permits.

## Western Creek, NT

At Western Creek, NT (EL 23684) CUX has identified diamond targets.

The Western Creek Target is 80km south west of Larrimah, in what is mapped as the middle of the Cambrian Daly Basin, which is also overlain by the Cretaceous Dunmarra Basin. The area is poorly drained, and there is limited rock exposure. Sampling of sub-outcropping breccias has returned curious geochemical results, but the primary target commodity is diamonds. The near absence of stream channels has made it impossible to obtain surface gravel samples for diamond exploration.

However, during the quarter, CUX have trialled a relatively simple means of collecting samples of subsurface wash from choked channels recognisable on geophysical and satellite imagery. CUX have used a light mechanical auger rig to drill lines of holes across the channels and to zero in on gravel beds for diamond and heavy mineral sampling. Several hundred kilograms of -1.2mm material was collected from gravel wash encountered on two lines. One of these samples contained four chromite grains which, based on morphology and microprobe chemistry, are interpreted by our consultants, Global Diamond Exploration Services Pty Ltd, to be derived from kimberlites. No microdiamonds were observed in these samples. It is hoped to perform some confirmatory work during the December quarter.

Given the results additional exploration licences were applied for at Western Creek (EL25605 and EL25607) and Lake Woods (EL25631) to cover possible extensions and favourable settings for diamond occurrences.

# Sylvester, NT

At Sylvester, Barkly Tablelands, NT (EL23683, EL23685) CUX is targeting diamonds. During the quarter, a programme of auger drilling similar to that completed at Western Creek was completed primarily to collect samples for heavy mineral studies for diamonds. Results from two lines were still being processed at the end of the quarter. Several other lines were drilled but did not yield alluvial material.

## Tripod, NW Qld

During the quarter, ground magnetometer traverses were run to determine depth to basement beneath the Cretaceous cover sediments. The results of this work, and geological observations made during the survey have explained all of the features which enticed CUX to persist with the project, as well as confirming thick cover over the target rocks. As a result, the process of surrender of the titles was commenced.

# PLANNED ACTIVITIES FOR DECEMBER QUARTER

Ongoing exploration plans will cover the projects discussed below.

# Chilling, NT

Reconnaissance will commence on the newly granted areas and follow up work on uranium targets.

## **Crossland Creek, WA**

Follow up soil sampling of anomalous area and mapping of alteration zone.

#### Western Creek, NT

Follow up of auger sampling results with more detailed auger sampling.

## Sylvester, NT

Follow up on diamond sampling results.

## Baines, NT

Reconnaissance exploration of the Baines area has been planned. The area is believed to be prospective mainly for diamonds, with some copper/ nickel potential associate with a possible flood basalt vent. The work will proceed in late October with helicopter support.

# Lake Woods, NT

CUX aims to complete an airborne EM survey to assist drill target generation during the Quarter, subject to weather conditions and equipment availability.

## Old Yard, NT

The Old Yard Target was taken up for its copper- nickel- platinoid potential. Reconnaissance will be undertaken during the December Quarter. Little detailed information is available about the area, and it is in that small remaining portion of the NT not yet covered by high quality airborne geophysics, so it is difficult to know what to expect. Several small copper occurrences are known from Antrim Plateau Volcanics in the vicinity.

## **KSL Yukon**

There has been no field work on the KSL Yukon titles, and a review is under way to determine the best use of the assets.

## **CORPORATE**

Crossland Uranium Mines Limited (CUX) was formed through the merger of Klondike Source Limited (KSL) and Crossland Mines Pty Ltd on 31 May 2006.

Preparations are being progressed for a major share issue to accompany listing of the Company on ASX. The prospectus for the IPO is in the advanced stage.

#### Website

The website was updated to provide details of the company and each of our target areas. The update will be done in two stages: www.crosslanduranium.com.au is currently operating. Further upgrades to the web site will be made in conjunction with the planned release of the prospectus.

## **Geoff Eupene**

**Exploration Director** 

The review of exploration activities and results contained in this report are based on information compiled by Geoffrey S Eupene CP, a Fellow of the Australasian Institute of Mining and Metallurgy. He is a director of the Company and a full time employee of Eupene Exploration Enterprises Pty Ltd. He has sufficient experience which is relevant to the style of mineralisation 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). Geoffrey S Eupene has consented to the inclusion in this report of the matters based on his information in the form and context in which it appears.