

**Listings Officer  
ASX Melbourne**

**ASX Announcement by Electronic Lodgement, Thursday, September 22, 2011**

## **FERTILISER PROJECTS – EXPLORATION UPDATE**

### **KARINGA CREEK POTASH (RUM /RWD Joint Venture - RWD diluting from 50%)**

Exploration plans for potash resource drilling on the Karinga Creek salt lakes were recently approved by the NT Department of Resources. Vibracore drilling immediately commenced and eight drill holes were completed to a maximum depth of 3.5 m. The vibracore system was successful at coring the soft lake sediments however was not able to penetrate through stiff clays and fractured siltstones beneath the lake sediments.

This siltstone of the Horseshoe Bend Shale of the Devonian aged Finke Group is basement to most lakes in the project area and, where it is fractured, it contains free-flowing brine. Thus, the Horseshoe Bend Shale is now considered to be the host aquifer beneath the salt lakes and this aquifer is thought to supply most of the recharge water to the salt lake system. This is why even after many years of drought conditions, the salt lakes are always wet in the subsurface. The Horseshoe Bend Shale is evaporitic and outcrops fringe almost all salt lakes (Figure 3 and 4). Salts leached from these evaporite outcrops are probably the source of most salt in the salt lakes.

**Figure 1. Vibracore drilling at Karinga Creek**



**Figure 2. Vibracore drill core samples in sealed tubes and corresponding brine samples**



The discovery of a basement-hosted salt water aquifer is a significant step forward for the project as previous government mapping and reports had suggested only minimal recharge from surficial fringing calcrete aquifers after rain events. Previous explorers on the salt lakes system also failed because they could not prove a substantial recharge feeder for the lakes.

A decision was made to switch to a sonic drill rig which should be able to penetrate into the fractured siltstone of the Horseshoe Bend Shale. Sonic drilling will not only prove-up a brine resource from within the lake bed sediments (typically clayey sands and gypsum) but will allow the inclusion of a potentially much larger brine resource of yet uncertain depth in the basement siltstone aquifer under the lakes. A sonic drill rig will mobilise to site next week. Drilling will be supported by specialist all-terrain vehicles and helicopter-lift.

RUM will continue to move forward over coming months with a strategy to test the geochemistry, size, structure and recharge potential of the basement aquifer. Work will include sonic drilling for resource estimation, trialling of helicopter-borne geophysical methods to map the salt water zones and aquifers, both within and beneath the lakes. Pending Government approval, trenching and pump testing of lakes will be undertaken to determine recharge rates.

**Figure 3. Outcrop of Horseshoe Bend Shale near Swansons North Lake and brine inflow in shallow siltstone pit**





**Figure 4. Outcrop of Horseshoe Bend Shale on northwest bank of Skinny Lake and brine inflow in shallow siltstone pit**



**Figure 5. Typical clayey sands and gypsum rich lake bed sediments**



## **AMMAROO PHOSPHATE UPDATE (RUM 100%)**

Now into the sixth week of this campaign of resource drilling, approximately 350 additional resource drill holes for 11 500 metres had been completed at Barrow Creek 1. Drilling with one rig continues at a rate of around 300 m per day. Resource drilling has extended the grid to the south and central east. Fifty metre spaced infill drilling to test for DSO material has also been completed. Approximately 3000 samples have been submitted to the laboratory for assay.

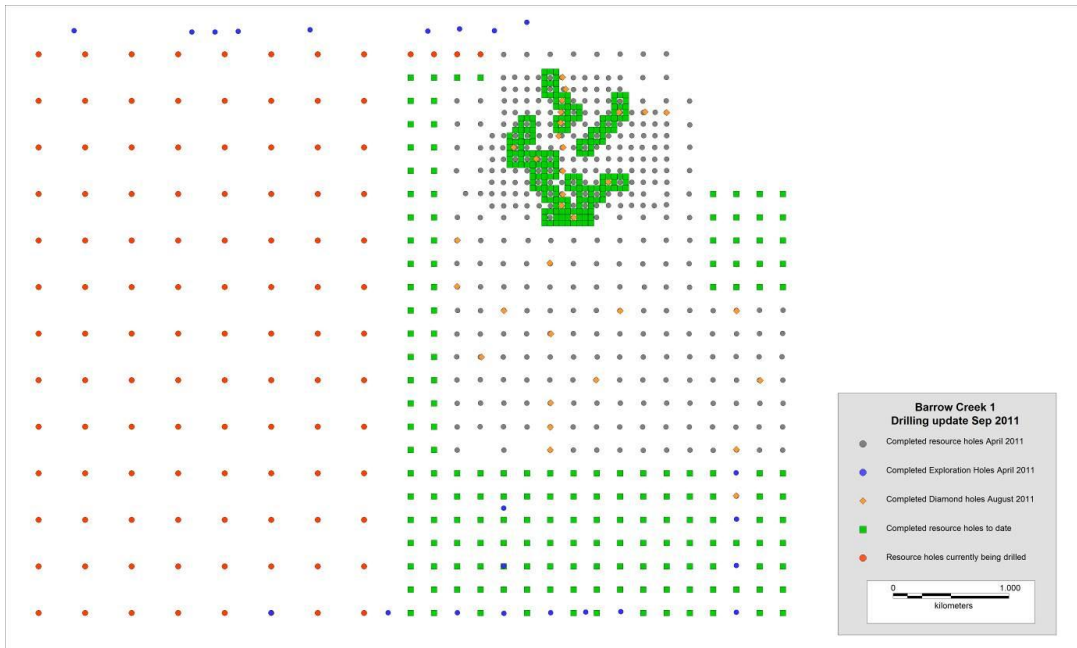
Western extensional drilling should be completed in one week. The drill rig will then move on to regional exploration and will test a number of geophysical targets of similar magnetic signature to Barrow Creek 1 and Ammaroo 1.

Once resource drilling is complete and all assays received, data will be sent to Hellman & Schofield for a resource estimation upgrade. This upgrade will also contain drill data from 32 diamond drill holes (815.9m), complete with assays of all samples by both IC4 and XRF geochemical methods. Data also includes 58 diamond drill core density samples and 70 density measurements of rocks from three bulk sample locations.

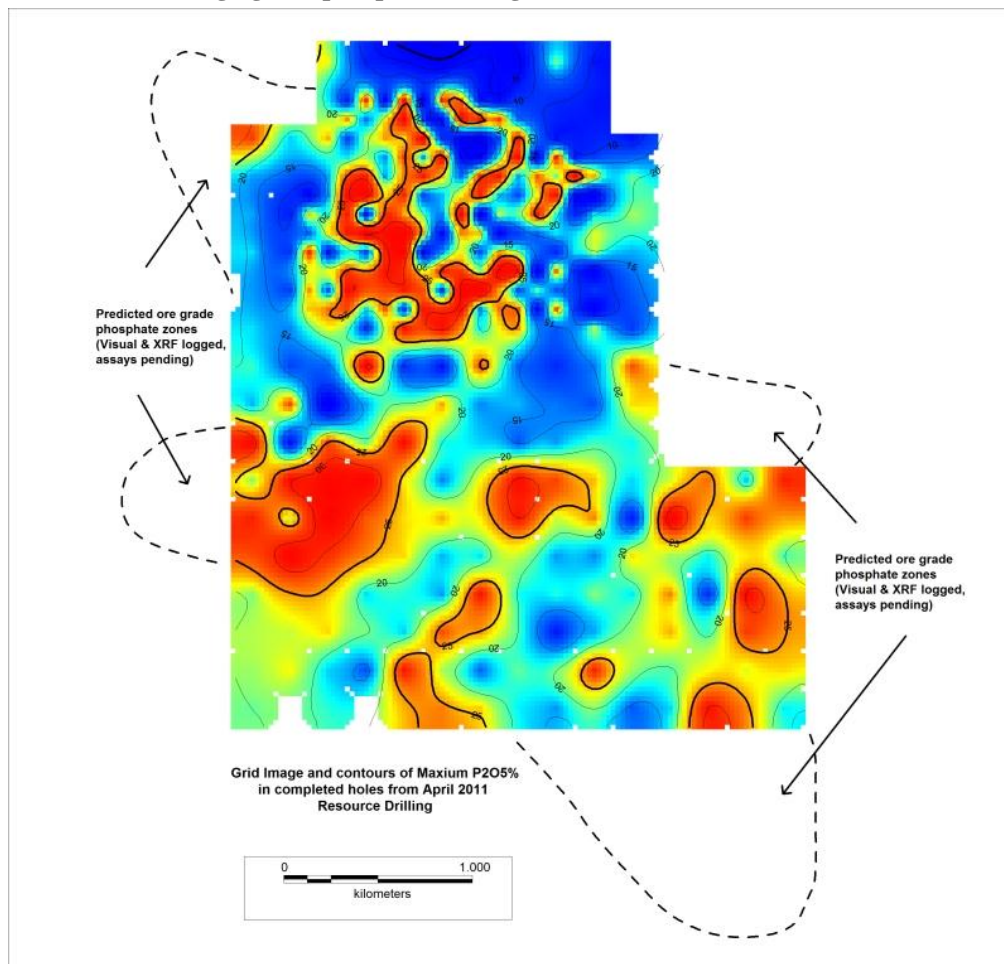
Bulk sample testing continues, including a comminution program being expanded to include a full JKTech Drop Weight Test. This, and the various milling tests already in progress, will provide comprehensive data needed to design a milling circuit in the beneficiation process.

A water bore has been drilled and water will be piped to the new exploration camp which will arrive on site next week.

**Figure 6. Updated resource drilling map for Barrow Creek 1**



**Figure 7: Distribution of high grade phosphate from grid area and recent inferred extensions**



## ADMINISTRATION AND MARKETING

The Managing Director has been invited to join a contingent from the NT Department of Resources and the Minister for Mines to visit Korea, Japan and China during October. The company also continues to attract interest from potential investors offshore with whom it is having general discussions.

A handwritten signature in black ink, appearing to read 'D.W. Muller', written in a cursive style.

D.W.Muller M.Sc., M.B.A., F.Aus.I.M.M.

Managing Director

*The information in this report that relates to exploration results, mineral resources or ore reserves is based on information compiled by Mr. David Muller, who is a Fellow of the Australian Institute of Mining and Metallurgy.*

*Mr. Muller is Managing Director and a consultant to the Company. Mr. Muller has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity to which he is undertaking to qualify as a Competent Person as defined in the 2004 edition of the "Australian Code for Reporting of Exploration results, Mineral resources and Ore Reserves".*

*Mr. Muller consents to the inclusion in this report on the matters based on his information in the form and context in which it appears.*