



ASX ANNOUNCEMENT

23 April 2008

## Encouraging drill results from Jindivik prospect in the Olympic Dam District

### HIGHLIGHTS

- Drill hole reaches Cocky Swamp gravity target in Olympic Dam district
- Target upgraded and renamed Jindivik Prospect
- Geological results and target size very encouraging for copper, gold and uranium potential within large iron oxide system
- Prospective breccia intercept directly beneath 850m of cover sediments
- Breccia underlain by broad zone of strongly haematite and magnetite-altered metasediments with trace copper sulphides

### SUMMARY

Joint Venture partners Southern Uranium Limited (ASX Code: SNU) and Crescent Gold Limited (ASX: CRE, TSX: CRA, FFT: CRE5) today announced drill-testing at the Cocky Swamp gravity target for a large iron oxide copper gold uranium (IOCGU) system has provided very encouraging results.

Drill hole CSDDH02 reached the forecast depth of the basement target and intersected a 12m interval of prospective breccia from 922.5m depth down the hole.

Southern Uranium Managing Director, Mr John Anderson said the upgraded Cocky Swamp target has been renamed the Jindivik Prospect.

"Jindivik is situated in an interpreted geological corridor that contains a number of IOCGU deposits including the Olympic Dam mine some 60km to the north, the new Prominent Hill mine 190km to the north west and the Carrapateena prospect 70km to the south east," Mr Anderson said.

"The drill hole penetrated the 850m thickness of cover sediments as we had anticipated, to initially intersect the breccia then proceeded deeper into the basement through a broad zone of altered and haematite-magnetite veined metasediments which contain trace amounts of copper sulphides."

"These intersected rocks are considered to be on the edge of a large iron oxide hydrothermal system," Mr Anderson said.

"Our initial modelling from gravity data estimated the target to be 3km long and up to 400m wide. The exciting geology in this single drill test of such a large geophysical target warrants further exploration."

"It is the Joint Venture's opinion that hole CSDDH02 has significantly advanced the exploration potential of the large Jindivik Prospect."



## Background

The Cocky Swamp target was developed from a WMC drill hole CSD-1 drilled in 1980 to test a gravity and magnetic anomaly 5km south of Cocky Swamp, 20km north of Woomera and 60km south of Olympic Dam (Figure 1). The hole intersected altered sediments and volcanics with modest magnetite alteration and haematite veining and a best metal intersection of 4m of 0.54% Cu.

The target was secured under Exploration Licence 3603 and is subject to a Joint Venture between Southern Uranium and Uranium West Pty Ltd, a subsidiary of Crescent Gold. Southern Uranium is operating the exploration program with Uranium West earning to 50% interest by funding the exploration. The current interest in the tenement is Southern Uranium 75% and Uranium West 25%.

During 2007, the gravity and magnetic anomalies were resurveyed in more detail by the Joint Venture. The new data was interpreted to show hole CSD-1 failed to test the main target. The top surface of the main target was modelled as an elongate east-west body of 3km length and 400m maximum width (Figure 2). The modelled depth to top of 850m is consistent with the depth of basement intersected in CSD-1. The density estimate of 3.7g/cm<sup>3</sup> for the large gravity target and the haematite veining and weak mineralisation in the near-miss WMC hole raised the potential for a substantial IOCGU system similar to those at Olympic Dam and Prominent Hill.

As the target tested by CSD-1 is now recognised as a satellite gravity anomaly and the main target represents a larger elliptical shaped prospect, the Cocky Swamp target is now referred to as the Jindivik Prospect. The name Jindivik was selected in recognition of the heritage of the first pilotless plane operated in the Woomera region.

The centre of the Jindivik Prospect is situated 5km west of the Roxby Downs sealed road and 3km inside the eastern boundary of the Woomera Prohibited Area. Southern Uranium has signed a Deed of Access with The Commonwealth of Australia to permit restricted access for minerals exploration.

## Drill hole CSDDH02

Drill testing of the Jindivik prospect commenced mid-March 2008 when the Woomera access approval coincided with the availability of a suitable drill rig and crew provided by Wallis Drilling. The hole was designed to test near the centre of the gravity target but had to be collared from and drilled obliquely from a site cleared by a heritage survey undertaken during a prior access window.

The hole was precollared to 300m then cored to the final downhole depth of 1,232.1m. The initial hole angle of 65 degrees was selected to ensure the target was intersected with either nominal lifting or dropping of the hole. The hole dropped and veered north but stayed in the large target zone. The basement unconformity was intersected at 922.5m close to the reforecast depth (Figure 3).

## Cover Lithologies

The sequence of flat-lying cover sediments was as expected. The highlights in the cover were:-

- A 12m intersection of brecciated and altered dolerite, presumably a Gairdner Dyke, about 140m vertically above the basement. The upper three metres of the dolerite contained iron oxide and probable chrysocolla (copper silicate) veins (Photo 1) and vugs.

For personal use only



- Haematite rich pebbles in basal conglomeratic lenses (Photo 2) of the Pandurra Formation immediately above the unconformity (Photo 3).

### Basement Lithologies

The basement directly under the unconformity is readily recognisable as an altered breccia containing multiple types of fragments. Disrupted sediments and altered intermediate volcanic are described amongst the fragments so the breccia is interpreted as a heterolithic collapse breccia (Photo 4). Traces of fine chalcopryrite were identified in the breccia. Although only 12m of the breccia were intersected, the proposed rock type is indicative of the hydrothermal caldera environment that is prospective for the upper levels of IOCGU deposits.

After the breccia, the hole intersected strongly altered and stockwork-veined metasediments with haematite and magnetite veining (Photos 5 & 6). From 999.6m, the sediments are magnetite actinolite chlorite altered (Photo 7). The alteration decreased beneath 1,136m indicating the hole is moving out of the mineralised system.

Sporadic trace pyrite and chalcopryrite were intersected with the highest sulphide tenor estimated to be three percent pyrite with lesser chalcopryrite (Photo 8). No sampling of the core for assaying is yet undertaken. No anomalous radiometric readings have been obtained from scintillometer readings on the core.

### Preliminary Evaluation of the Jindivik Prospect

It is the opinion of the Southern Uranium geologists that hole CSDDH02 has significantly advanced the exploration potential of the large Jindivik Prospect. The hole provides a single drill test of a large geophysical target and may have skirted the western edge of an IOCGU breccia system. The proposed IOCGU system may underlay the centre of the large Jindivik geophysical anomaly situated 500m east of CSDDH02.

All aspects of the new drill data will be used to revise the Jindivik geophysical target. Further geophysics will be considered to map sulphide and magnetite within the prospect. The orientation of the dolerite dyke will be evaluated for a possible basement source to the copper in the logged chrysocolla.

The Joint Venture partners anticipate further drilling will be undertaken at Jindivik. The Woomera Testing Facility has advised access to the prospect will be restricted in May and June. This period will be used to analyse the core and plan further programs.

#### For further information:

Mr John Anderson  
Managing Director  
Southern Uranium Limited  
Ph: 07 3870 0357

#### Media:

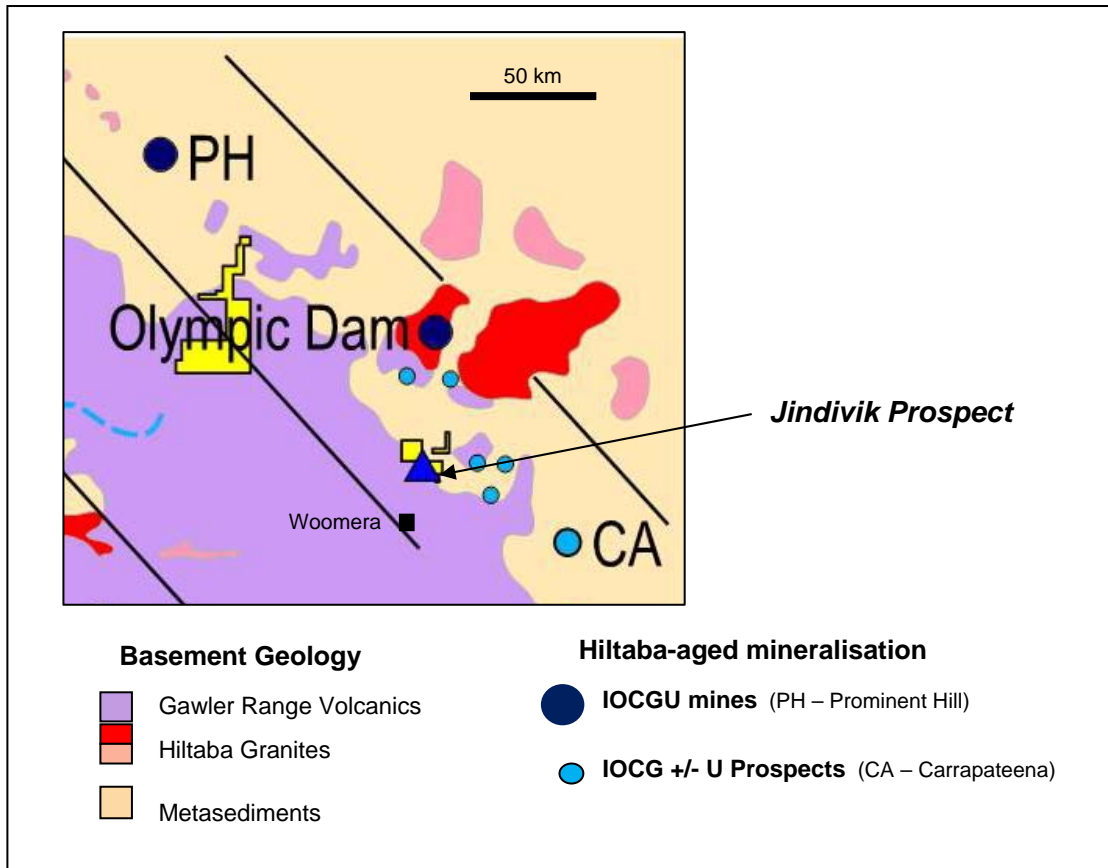
Anna O'Gorman  
Principal Consultant  
Three Plus  
Ph: 07 3503 5700

***Southern Uranium Limited is an ASX-List company (ASX Code: SNU) focussed on national and international exploration for uranium resources. The company has a strong platform of active exploration properties and drill targets in the highly prospective Gawler Craton of South Australia.***

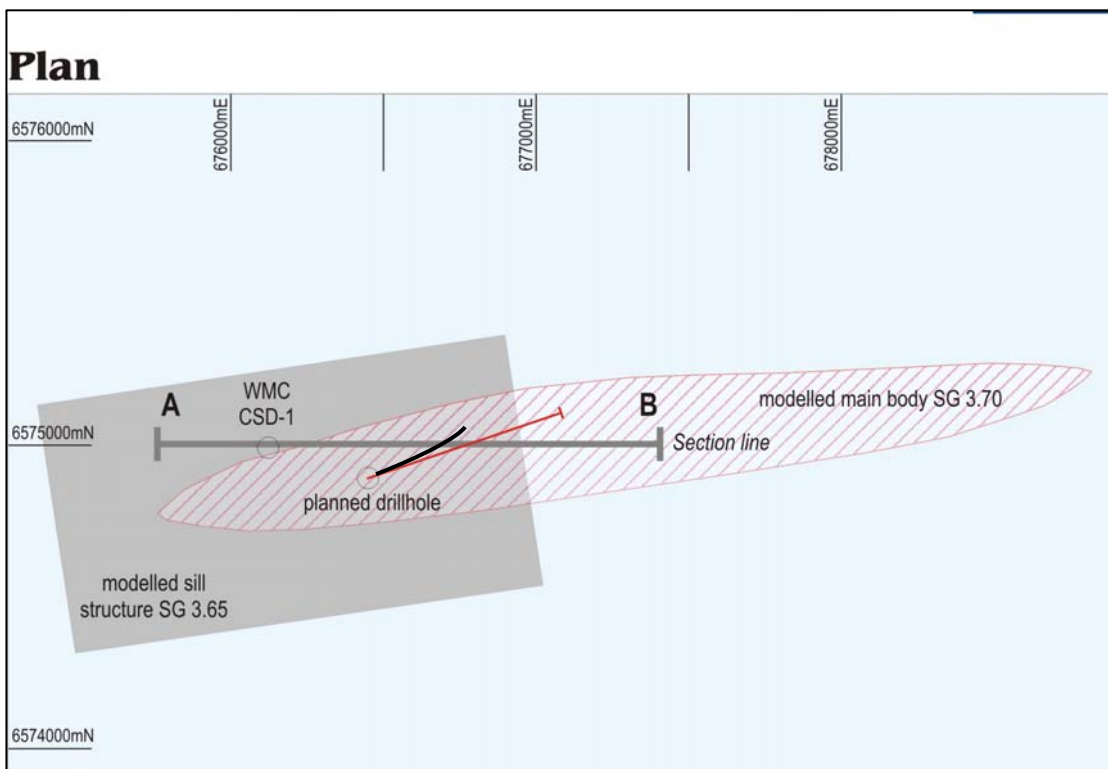
For personal use only



**Figure 1: Regional Location Plan – showing the Joint Venture tenements (yellow) and Jindivik prospect in the Olympic Dam district**



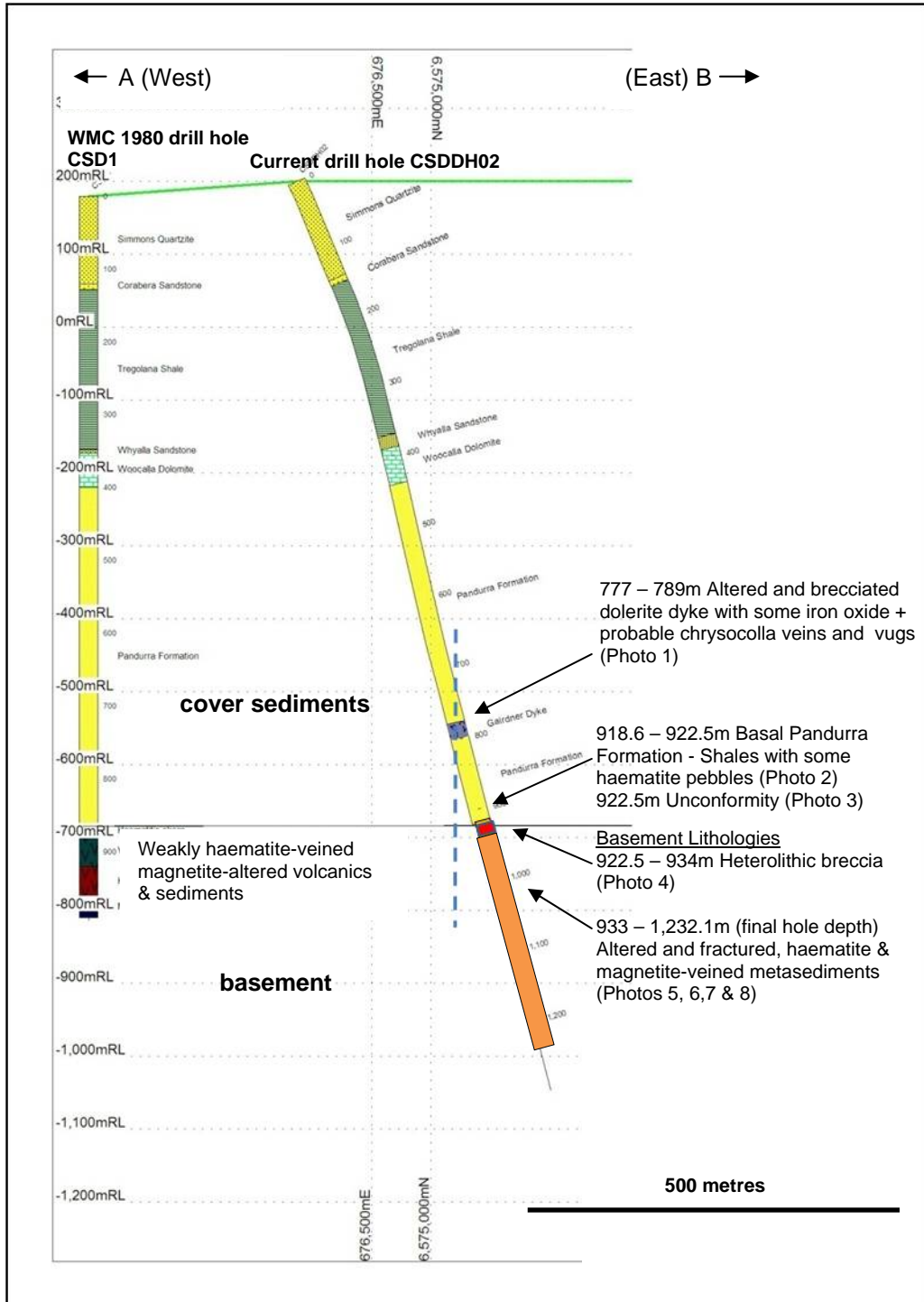
**Figure 2: Jindivik Prospect Target Plan showing trace of CSDDH02 in black**



For personal use only



Figure 3: Jindivik Prospect Drill Section



For personal use only



**Core diameter in all photos is approximately 5cm.**

**Photo 1:** Iron oxide and probable blue chrysocolla vein in an altered and brecciated dolerite dyke (Approx. downhole depth 780m).



**Photo 2:** Basal Pandurra Formation – shale with haematite-rich pebbles near the basement unconformity (Approx. downhole depth 920m).



**Photo 3:** Unconformity between the Pandurra Formation (uphole left) and the basement breccia (downhole right). (Downhole depth 922.5m).



For personal use only



**Photo 4:** Interpreted heterolithic collapse breccia (Approx. downhole depth 930m).



**Photo 5:** Multiple alteration and vein phases in contorted sediments with magnetite replacing fractured bedding (Approx. downhole depth 956m).



**Photo 6:** Stockwork of haematite veining of fractured sediment (Approx. downhole depth 968m).



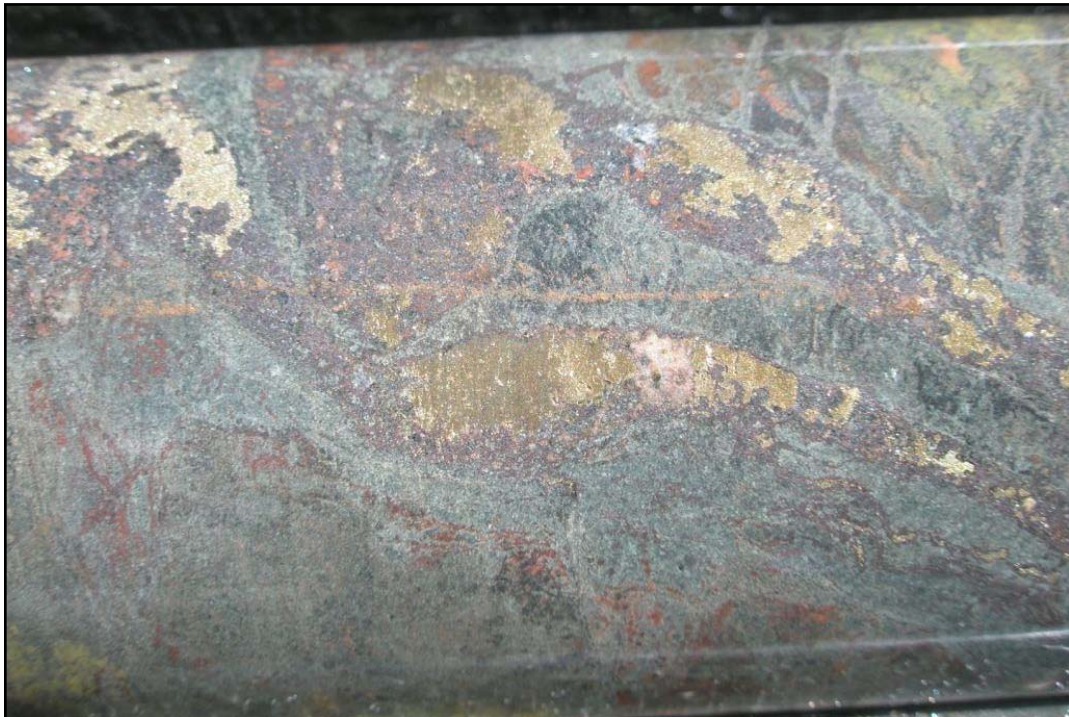
For personal use only



**Photo 7:** Partially magnetite-altered and haematite-veined sediment (Approx. depth 1,020m).



**Photo 8:** Iron sulphide pyrite (light brass colour) and copper sulphide chalcopyrite (dark brass colour) in haematite veins up to one centimetre wide in dark magnetite chlorite altered metasediments (Approx. downhole depth 1,055m). Sulphides sporadically occur elsewhere in hole CSDDH02 but are generally of lower tenor and finer in size.



*The information in this report that relates to Exploration Results is based on information compiled by John Anderson (BSc(Hons)Geol) who is a member of the Australasian Institute of Mining and Metallurgy and is bound by and follows the Institute's codes and recommended practices. Mr Anderson is a full-time employee of Southern Uranium Limited. He has sufficient experience which is relevant to the styles of mineralisation and types of deposits under consideration and to the activities being undertaken 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. Anderson consents to the inclusion in the report of the matters based on his information in the form and context in which it appears*