

17 December 2012

### **CAMBRIDGE NICKEL PROSPECT – EXPLORATION UPDATE**

### HIGHLIGHTS

- XRF analysis of reconnaissance drill holes at Cambridge has been completed
- Initial geological logging and XRF analysis identifies large scale nickel sulphide prospectivity of Cambridge
- Cambridge holes encountered long intervals of ultramafic with lower MgO content, interpreted to be in the upper zone of a layered ultramafic body and consistent with the potential for nickel sulphide mineralisation at increased depth
- Intersections (based on XRF analysis) of 14 m @ 0.503% Ni from 9m to 23m in CAMRC-001 and 8m @ 0.61% Ni from 3m to 11m in CAMRC-002 are indicative of secondary nickel enrichment

### 2012 EXPLORATION PROGRAMME AT CAMBRIDGE NICKEL PROSPECT

**St George Mining Limited** (ASX: **SGQ**) ("St George Mining" or "the Company") is pleased to provide an update on the latest phase of the 2012 exploration programme of its 100% owned Cambridge Nickel Prospect at the Company's East Laverton Property in the NE Goldfields region of Western Australia.

#### **Overview of Drilling**

Drill hole 1, CAMRC-001, was drilled to a depth of 168 m in the NW corner of the Cambridge ultramafic body to test its western contact with the surrounding host rocks. Drill hole 2, CAMRC-002, was drilled to a depth of 150 m.

Both holes at Cambridge were terminated prematurely due to a combination of ground and weather conditions. Each hole encountered long intervals of, and ended in, ultramafic lithology. This is consistent with the large size of the ultramafic body at Cambridge.

The XRF analysis of these nickel holes has now been completed by the Company and preliminary data suggests that the shallow holes only tested an upper ultramafic unit with a lower MgO content.

Considering the geophysical, geochemical and geological analysis of Cambridge to date, St George believes that a strong technical case exists to suggest that high MgO olivine mesocumulate and olivine adcumulate rocks, being the target rocks for nickel sulphides, will be present at deeper levels than those tested by the recent drilling.



#### **Drilling Results**

The XRF analysis of the drill samples has identified nickel and chrome values which are helpful in determining the composition of the ultramafic rocks being intersected.

Nickel content greater than 3,000 ppmNi can indicate olivine mesocumulate and olivine adcumulate rocks, which are the host for nickel sulphide mineralisation.

Nickel values identified by the XRF analysis throughout the two holes were predominantly around or greater than 2,000 ppmNi. Significantly, the nickel values identified by the RC holes are of a similar quantum to the corresponding chrome values.

This is indicative of an ultramafic rock unit with a lower MgO content than typical for the highly prospective olivine mesocumulate or olivine adcumulate unit, but well above the nickel response expected for a non-prospective ultramafic unit like a pyroxenite (approximately 700 ppmNi). (Refer "Komatiites, Petrology, Volcanology, Metamorphism and Geochemistry", Stephen J Barnes (2006) SEG Special Publication Number 13).

The Ni: Cr (nickel: chrome) ratios show chrome values are higher than, or comparable to the nickel values, and this is also consistent with an ultramafic unit having a relatively lower MgO composition than the targeted rocks.

A decrease in chrome together with an increase in nickel and MgO values reflects an increased percentage of olivine. The levels of Ni and MgO increase with the percentage of olivine in the ultramafic and are highest in olivine mesocumulate and olivine adcumulate rocks.

The attached graphs plot the nickel and chrome values identified in each hole by the XRF analysis.

The highest nickel values encountered by the drilling were 14 m @ 0.503% Ni from 9 m to 23 m in CAMRC-001 and 8m @ 0.61% Ni from 3m to 11m in CAMRC-002.

Considering the background nickel values of the host rocks, the shallow position, and the absence of corresponding copper values, the nickel intersected is likely to represent secondary enrichment.

HOLE ID	NORTHING	EASTING	DIP (deg)	AZM (deg)	DEPTH (m)	FROM (m)	TO (m)	INT (m)	%Ni
CAMRC-001	6 746 830	518 380	-60	235	168	9	23	14	0.503
CAMRC-002	6 746 405	520 500	-60	55	150	3	11	8	0.61

Table 1 – Table showing details of Cambridge RC drill holes

Samples from the RC holes have now been sent to SGS Laboratories for a complete suite of assays. Results are expected in late January 2013.

#### Technical Review of Cambridge

The XRF analysis of samples from the Cambridge holes has provided important information that has assisted in recognising the geological and economic significance of the nickel intersections encountered in this RC reconnaissance drilling.



An interim technical review of the Cambridge Nickel Prospect has been completed using the preliminary drilling data as well as the available geophysical data (including the EM survey) and the geochemical data. Assistance has also been provided by Dr. Martin Gole, a global expert on nickel sulphide mineralisation and exploration.

The review has assessed Cambridge to be a large ultramafic (dunite) body situated within the Stella Range ultramafic belt, which is highly prospective for nickel sulphide mineralisation.

The Cambridge ultramafic (dunite) body lies predominantly within tenements held 100% by St George but also extends into tenements covered by the Project Dragon farm-in arrangement. The part of the body on the 100% St George area has a width of around 1,500 m and a strike length of approximately 3,000 m.

Sophisticated modelling of the recent EM survey and magnetic database at Cambridge indicated that the large surface dimensions are consistent in three dimensions, with a potential depth of approximately 1,500 m. This feature favours an intrusive rather than komatiite channel origin for the Cambridge ultramafic body.

The interim review suggests that the Cambridge ultramafic body is likely to have undergone some degree of magmatic fractionation resulting in "layering" within the ultramafic body, where individual zones have varying Ni + Cr + MgO compositions.

A comparison may be made between the geological aspects of the very large Mt Keith Nickel deposit, located within the Leinster Nickel Field, and the large ultramafic (dunite) body at Cambridge. The scale of the Cambridge ultramafic body is analogous to the Mt Keith ultramafic complex.

The Mt Keith nickel deposit is hosted within a large dunite body that is predominantly comprised of prospective olivine mesocumulate and adcumulate ultramafics but has a capping of lower MgO ultramafics and mafic rocks. Mt Keith provides a reference for the interpretation of the significance of the reconnaissance drilling results at Cambridge, and guidance for developing an exploration strategy for Cambridge.

Incorporating the Mt Keith geology into the Cambridge review, there appears a strong case to suggest that the high MgO olivine mesocumulate and olivine adcumulate rocks, the targeted area for nickel sulphides, will be at deeper levels than the levels tested in the recent reconnaissance drilling.

Figure 1 contains a conceptual section of the Cambridge Nickel Prospect.



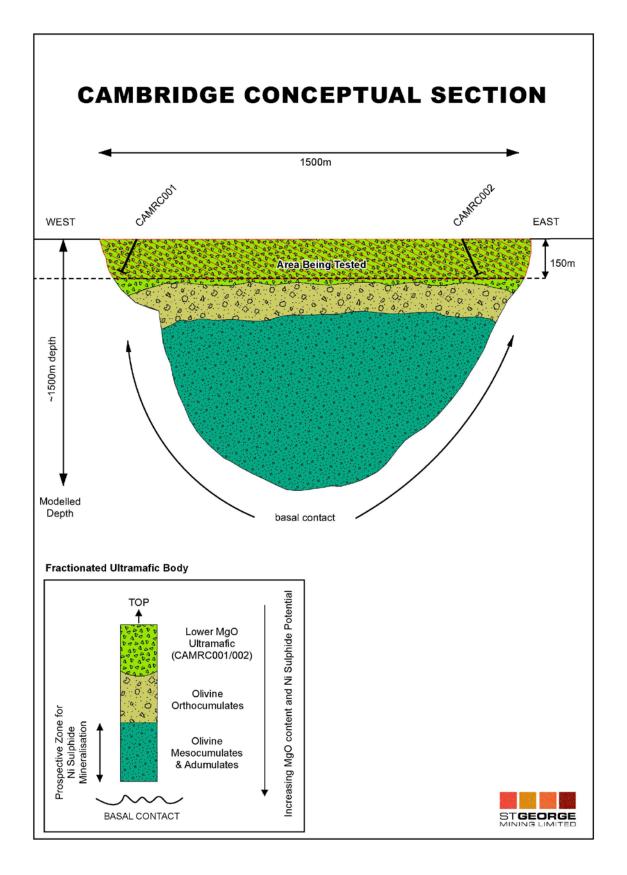


Figure 1 – The figure shows a conceptual section of the Cambridge ultramafic body, and illustrates the very large scale exploration potential yet to be tested



#### **Further Exploration**

The 2012 drilling programme was suspended on 25 November 2012 due to adverse weather and ground conditions. Heavy rain has periodically continued at site, confirming the unexpectedly early arrival of the 'wet season'. The access tracks at our East Laverton Property include areas of salt lakes and clay pans which are now impassable because of the continuing rain. Exploration activities involving heavy equipment will not be able to resume until late in Q1 2013.

St George Mining will complete its technical review of the Cambridge Nickel Prospect once the laboratory assays are received, and schedule further exploration work at Cambridge in light of the findings of that review.

#### **XRF** Analysis

References to XRF results relate to analysis using a hand-held Olympus Innov-X Spectrum Analyser. This portable device provides immediate analysis of modal mineralogy of drill samples. The XRF results provide a valuable technical input into management decisions made in the field, during an ongoing exploration programme. While the device is unable to reliably detect gold in samples, it is useful in determining the geochemistry character and trends associated with the geological features encountered in drilling. It is considered to be more reliable for assessing levels of base metal mineralisation.

Results from XRF analysis are stated as indicative only, and are preliminary to subsequent confirmation by geochemical analysis at SGS Laboratories. There are many variables in the field that can affect the accuracy of the XRF readings and formal laboratory geochemical analysis is required to confirm mineralogy of drill samples.

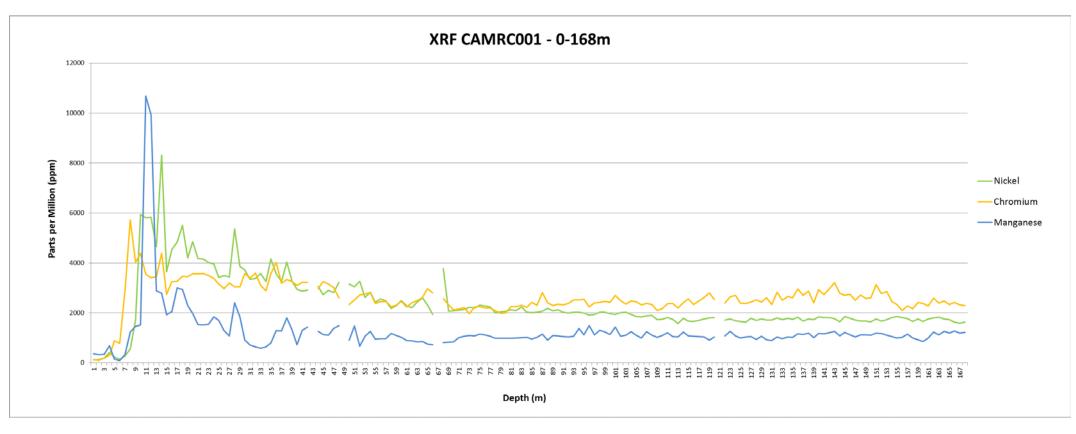
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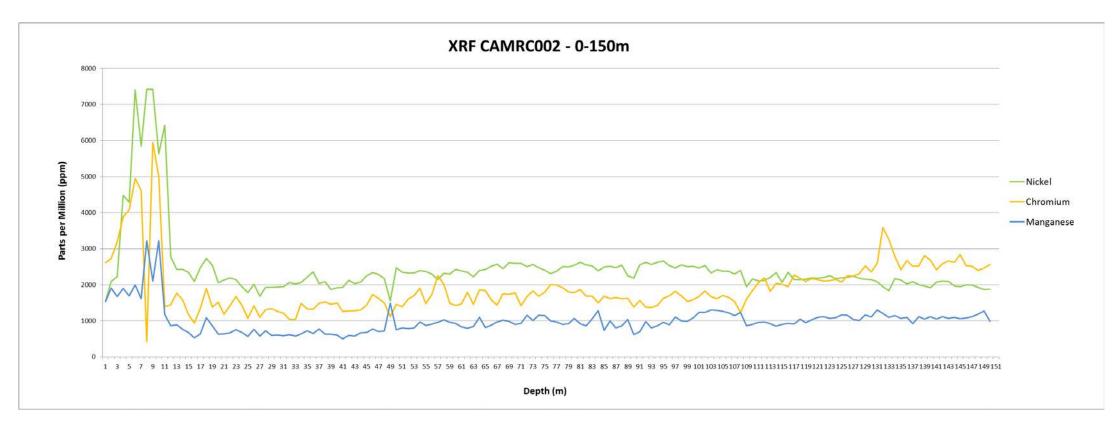
The information in this announcement that relates to Exploration Results and Mineral Resources is based on information compiled by Andrew Hawker of Hawker Geological Services Pty Ltd. Mr Hawker is a member of the Australasian Institute of Mining and Metallurgy has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration and to the activity, which he is undertaking. This qualifies Mr Hawker 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 Hawker consents to the inclusion of information in this announcement in the form and context in which it appears.





Graph 1 – the Ni, Cr and Mn detected by the XRF analysis of CAMRC-001





Graph 2 – the Ni, Cr and Mn detected by the XRF analysis of CAMRC-002