

4 June 2019

## **EXPLORATION UPDATE – EXTENSION TARGETS IDENTIFIED AT MT ALEXANDER**

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### **HIGHLIGHTS:**

***New geophysical surveys have highlighted a number of conductive features within the Cathedrals Belt that are compelling targets for the extension of nickel-copper sulphide mineralisation including:***

- **A large conductive area identified adjacent to the intersection of the Ida Fault and Cathedrals Belt, a highly prospective location for the potential concentration of nickel-copper sulphide mineralisation**
- **Two conductive anomalies identified in the northern section of the Investigators Prospect, favourably located down-dip and along strike of known high-grade nickel-copper sulphides**
- **Two conductive anomalies identified in the underexplored Bullets Prospect, to the east of and along strike of high-grade mineralisation discovered at the Cathedrals Prospect**
- **New targets are corroborated by data from three separate geophysical surveys – the recent Sub-Audio Magnetics (SAM) survey as well as prior moving loop EM (MLEM), fixed loop EM (FLEM) and fixed loop SAMSON surveys**
- **Extensive drill programme to commence once Programme of Works is approved**

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Emerging Western Australian nickel company St George Mining Limited (ASX: **SGQ**) (“**St George**” or “**the Company**”) is pleased to announce that a number of new, high priority nickel-copper sulphide targets have been identified at the Mt Alexander Project, located near Leonora in the north-eastern Goldfields.

To date, high-grade nickel-copper sulphides have been intersected across a 4.5km strike of the Cathedrals Belt – spanning from the Investigators Prospect in the west to the Cathedrals Prospect in the east.

The Cathedrals Belt is inferred to further extend from the western margin of the Investigators Prospect to the Ida Fault approximately 2.5km to the west.

**The recent SAM survey has identified a large conductive feature, with an interpreted strike in excess of 300 metres, at the intersection of the Ida Fault and the Cathedrals Belt. The Ida Fault is a deep, tectonic fault that is known to be associated with significant mineral deposits to the north and south of the Mt Alexander Project.**

This area remains largely undrilled and is referred to as the West End Prospect. This new conductive and structurally important area is a high priority target for the discovery of nickel-copper sulphides and will be the first target to be drilled when drilling re-commences at Mt Alexander shortly.

Additionally, four new EM anomalies have been identified coincident with major conductive features proximal to known nickel-copper sulphides at both the Investigators Prospect (a 1.5km east-west striking ultramafic dipping at 30 degrees to the north) and at the underexplored Bullets Prospect (east of the Cathedrals Prospect).

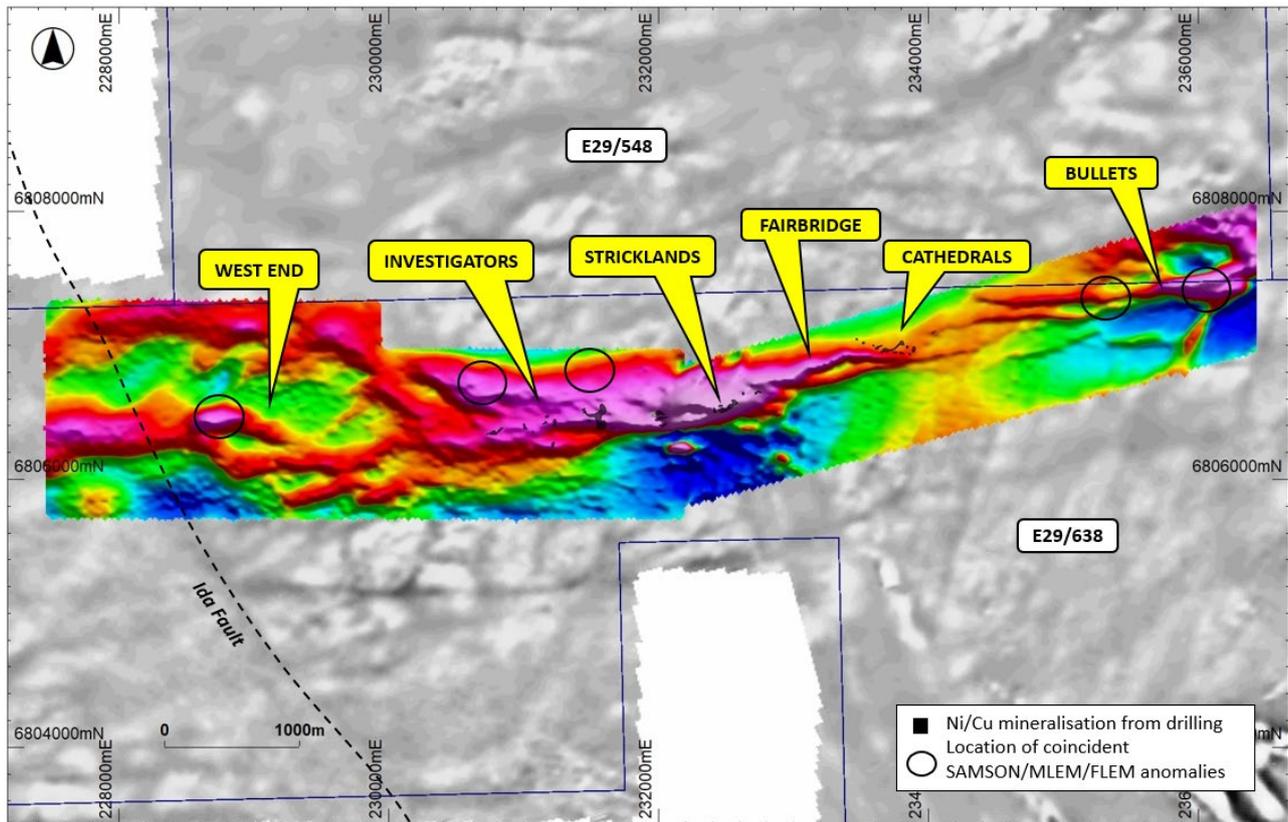


Figure 1 – SAM (MMC) survey data along the Cathedrals Belt. The purple areas represent the strongest conductive responses and are interpreted to represent major faults within the Cathedrals corridor, a structural setting that is known to host nickel-copper sulphides in this Belt.

**St George Mining Executive Chairman, John Prineas** said:

“The new target areas are located along strike or down-dip of high-grade nickel-copper sulphide mineralisation already discovered at the highly mineralised Cathedrals Belt, and are supported by three separate geophysical surveys.

“The new conductive target adjacent to the Ida Fault is particularly exciting. This area has never been drilled and we look forward to drilling this large target soon.

“We are also very enthusiastic about the new conductive anomalies to the north of Investigators as our geological model for the Cathedrals Belt supports the scope for continuity of high-grade mineralisation either at depth in the northerly down-dip direction or through the repetition of the mineralised ultramafic in the north.

“These are compelling targets for the potential discovery of further nickel-copper sulphides which could significantly expand the footprint of high-grade mineralisation at Mt Alexander.”

The new, northern conductive anomalies are located approximately 300m from the numerous high-grade intersections at Investigators that include those listed in Table 1 below.

The drilling of these new anomalies will represent a major step-out from the large mineralised horizon already established at Investigators, and will test for a significant extension of the known high-grade mineralisation.

Hole	From (m)	Width (m)	Ni (%)	Cu (%)	Co (%)	PGE (g/t)
<b>MAD126</b>	184.0	7.86	5.7	2.1	0.18	2.65
<i>including</i>	185.0	5.25	7.0	2.7	0.23	3.10
<b>MAD127</b>	183.9	8.49	5.8	2.6	0.18	3.61
<i>including</i>	184.4	6.39	6.5	2.8	0.21	3.68
<b>MAD108</b>	199.0	8.40	2.0	1.0	0.06	2.59
<i>including</i>	206.0	1.37	6.8	2.9	0.21	5.58
<b>MAD60</b>	157.9	5.3	4.95	2.75	0.16	4.55
<i>including</i>	159.38	3.0	6.40	3.55	0.21	5.25
<b>MAD136</b>	144.0	5.1	3.88	2.41	0.1	6.93
<i>including</i>	149.55	2.38	6.76	4.29	0.19	6.39

*Table 1 (above) – sample of high-grade intersections at the Investigators Prospect. For a full listing of significant intersections, see the attached 2012 JORC Table.*

*On right: Photograph shows drill core with massive nickel-copper sulphides from MAD126 at Investigators.*



## **SAM SURVEYS DEFINE NEW TARGET AREAS**

### ***Extensions of Host Structures Confirmed:***

The recent SAM survey completed on the Cathedrals Belt has been highly successful in defining the structural corridor which hosts the Cathedrals Belt ultramafic complex. These structures are interpreted to be the likely source through which mafic/ultramafic intrusions hosting nickel-copper sulphides have passed upwards from the Earth's mantle.

The SAM survey is a high definition technique developed for simultaneous mapping of the electrical and magnetic characteristics of the ground. The most conductive areas are displayed as warm colours in survey data – see Figure 1 for the modelled SAM data across the Cathedrals Belt.

The survey has shown outstanding detail of features within the Cathedrals corridor and, in particular, highlights a number of host structures associated with the known nickel-copper sulphide mineralisation. Typically, the nickel-copper sulphides are seen in embayments of these structures – a textbook setting for the accumulation of this type of mineralisation.

In the underexplored West End Prospect, the survey has shown that the main Cathedrals Belt structural trend splits into two distinct limbs as it approaches the Ida Fault – one trends to the north-west while the other limb trends to the south-west. The resolution of these two trends allows ongoing exploration at West End to be more effective by focusing on these favourable structural locations.

Data from a historical SAM survey completed by BHP around the area of the Cathedrals Prospect was also re-processed and merged by Newexco with the latest SAM data.

The integrated data shows the continuation of key structures for over 2km to the east of the Cathedrals Prospect. This area includes the Bullets Prospect. Very limited drilling in this area has discovered nickel-copper sulphides but the area remains underexplored.

The Cathedrals Belt is interpreted to potentially extend from Bullets for a further 6km to the east. The SAM survey will be expanded to cover this area, referred to as the Fish Hook Prospect, which remains largely unexplored.

### ***New Conductive Anomalies Identified:***

The SAM survey data has also highlighted a number of highly conductive areas that require follow-up exploration.

In particular, five new high priority conductive targets have been identified in favourable structural settings for the discovery of nickel-copper sulphides. The highly conductive areas defined by the new SAM data were reviewed in conjunction with and corroborated by existing MLEM, FLEM and SAMSON survey data.

One target is adjacent to the Ida Fault, two are down-dip of nickel-copper sulphides discovered at the Investigators Prospect, and two are located the Bullets Prospect – see Figure 1.

The five targets are associated with a number of important features which support their merit as targets for nickel-copper sulphides:

- Each target is co-incident with a MLEM or FLEM anomaly
- The West End targets are co-incident with a SAMSON anomaly, which shows similar characteristics and scale to the corresponding MLEM anomaly
- The EM anomalies are located in highly conductive areas defined by the SAM survey which are interpreted to be the continuation of the structures which host the mineralised ultramafics intersected elsewhere along the Cathedrals Belt
- The targets cover areas of embayment of the structural corridor, which is a favourable setting for the accumulation of mineralisation

Modelling of the MLEM and SAMSON anomalies is being finalised by Newexco with interpretation indicating that they have a limited strike length, suggesting that they are related to isolated bedrock features rather than being related to surficial cover.

### ***Ida Fault – Potential Source of Mineralisation:***

In large sulphide mineral systems, copper values are typically higher in the outer margins of the system and lower near the source of the mineralisation – because copper is more mobile than nickel.

At the Cathedrals Belt, copper values at the Cathedrals Prospect are higher than those at the Investigators Prospect suggesting that Investigators may be closer to the source.

This model supports the potential for the intersection of the Cathedrals Belt with the Ida Fault to be highly prospective for nickel-copper sulphide mineralisation and the possible source of the intrusive rocks that host nickel-copper sulphides along the Cathedrals Belt.

### **FURTHER DRILLING PLANNED**

The new conductive targets discussed above have been prioritised for testing in the upcoming drill programme, an extensive RC (reverse circulation) and diamond drill programme for Mt Alexander.

The drill programme will also include a number of EM conductors that have been identified by downhole EM surveys carried out in drill holes recently completed in the 2019 RC drill programme. Modelling of the conductors is being finalised by Newexco, with details to be announced soon.

Drilling will be scheduled to commence as soon as practicable after approval of the Programme of Works, expected this month.

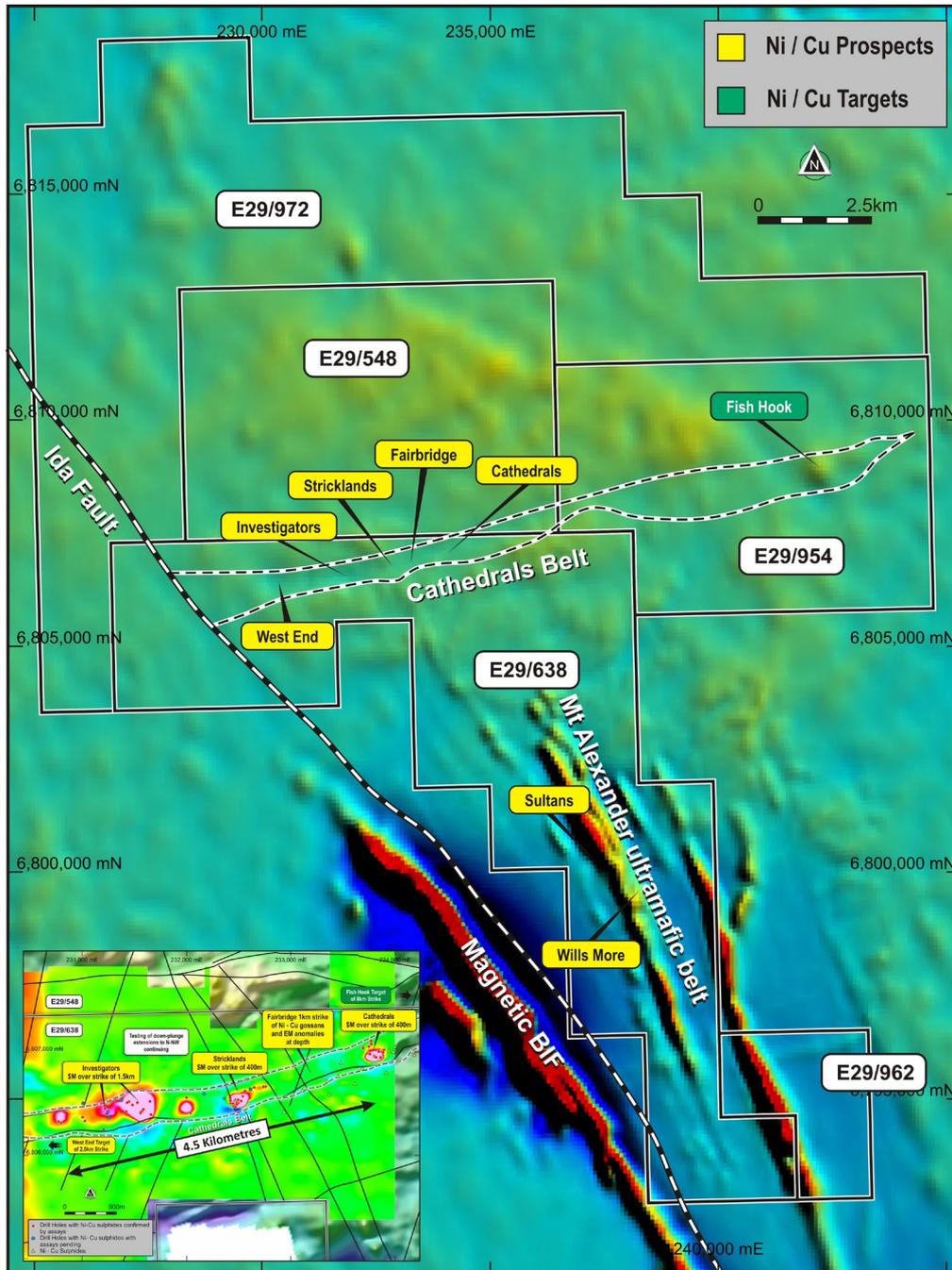


Figure 2 – map of the tenement package at Mt Alexander set against RTP magnetic data, showing the key prospects and targets under exploration.

**About the Mt Alexander Project:**

The Mt Alexander Project is located 120km south-southwest of the Agnew-Wiluna Belt, which hosts numerous world-class nickel deposits. The Project comprises five granted exploration licences – E29/638, E29/548, E29/962, E29/954 and E29/972.

The Cathedrals, Stricklands and Investigators nickel-copper-cobalt-PGE discoveries are located on E29/638, which is held in joint venture by St George Mining Limited (75%) and Western Areas Limited (25%). St George is the Manager of the Project, with Western Areas retaining a 25% non-contributing interest in the Project (in regard to E29/638 only) until there is a decision to mine.

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**Competent Person Statement:**

The information in this report that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr Dave O'Neill, a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy. Mr O'Neill is employed by St George Mining Limited to provide technical advice on mineral projects, and he holds performance rights issued by the Company.

Mr O'Neill has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr O'Neill consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.