

22 June 2021

## **ASSAYS CONFIRM HIGH-GRADE NICKEL-COPPER SULPHIDE DISCOVERY AT MT ALEXANDER**

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### **MAD199 HAS RETURNED ASSAYS THAT CONFIRM A THICK INTERVAL OF HIGH-GRADE NICKEL-COPPER SULPHIDES:**

- **11.07m @ 1.58% Ni, 0.71% Cu, 1.23g/t total PGEs from 333.5m  
*including*  
3.9m @ 3.98% Ni, 1.8% Cu, 3.1g/t total PGEs from 340.67m  
*and including*  
1.28m @ 6.54% Ni, 2.96% Cu, 3.88g/t total PGEs from 342.12m**
- **Importantly, as the deepest massive nickel-copper sulphides identified in the Cathedrals Belt, MAD199 confirms that the large intrusive mineral system at the Cathedrals Belt can host significant high-grade mineralisation at depth**

### **EXCELLENT POTENTIAL FOR FURTHER MASSIVE SULPHIDES IN THIS AREA:**

- **MAD201, the first step-out hole from MAD199, intersected 2.4m of nickel-copper sulphides from 434.6m downhole (assays pending) – 125m down-plunge of MAD199**
- **Three strong electromagnetic (EM) conductors identified from MAD201 with modelled conductivity of 120,400 Siemens, 30,000 Siemens and 23,000 Siemens, respectively – all interpreted to have a massive sulphide source and located up-dip towards MAD199**
- **Excellent potential for further mineralisation to be discovered along the 125m plunge extent from MAD199, with mineralisation open in all directions**

### **NEW GEOPHYSICAL SURVEYS UNDERWAY AT THE CATHEDRALS BELT:**

- **High-resolution deep ground penetrating radar survey underway at the Cathedrals Belt – designed to map conductive bodies within 100m to 150m from surface**
  - **Seismic survey scheduled for Cathedrals Belt next month – designed for high-definition mapping of structures and potential mineralisation to depths up to 2km from surface**
  - **Survey results will assist to guide drilling of deeper targets for massive sulphides as well as resource definition drilling of shallow deposits**
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Growth-focused Western Australian nickel company St George Mining Limited (**ASX: SGQ**) (“**St George**” or “**the Company**”) is pleased to announce that laboratory assays have confirmed the latest high-grade nickel-copper sulphide discovery at its flagship high-grade Mt Alexander Project in the north-eastern Goldfields.

The discovery made by hole MAD199 is below the shallow deposits already discovered at Investigators and is the latest high-grade nickel sulphide find across the Cathedrals Belt at Mt Alexander, where the Company continues to grow the footprint of this critical battery mineral.

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

“The high-grade intersection in MAD199 is a very important breakthrough in our exploration of the Cathedrals Belt.

“The MAD199 discovery is the deepest occurrence of massive nickel-copper sulphides identified in the Cathedrals Belt and supports the prospectivity of more high-grade deposits at depth.

“With multiple strong EM conductors identified from MAD199 as well as from the first step-out hole at MAD201, we are confident of drilling more high-grade mineralisation in this area.

“The search for nickel-copper sulphides at depth is still at an early stage and we are pleased to be rolling out a low-cost seismic survey that has the potential to identify in high-resolution the intrusive host system and any mineral deposits at depth.

“These results and our ongoing work are very positive for the growth potential of the high-grade mineralisation at Mt Alexander.”

Hole ID	From	To	Interval	Ni (%)	Cu (%)	PGEs (g/t)	Au (ppm)	Co (ppm)
<b>MAD199</b>	333.5	344.57	<b>11.07</b>	<b>1.58</b>	<b>0.71</b>	<b>1.23</b>	0.09	593
<b>incl.</b>	340.67	344.57	<b>3.9</b>	<b>3.98</b>	<b>1.8</b>	<b>3.1</b>	0.234	1,445
<b>incl.</b>	342.12	343.4	<b>1.28</b>	<b>6.54</b>	<b>2.96</b>	<b>3.88</b>	0.26	2,298

*Table 1 – laboratory assays for MAD199*



*Figure 1 – drill core from MAD199 showing massive nickel-copper sulphides 342.12m to 343.4m downhole*

The first step-out hole for MAD199 was MAD201, which intersected a 16m thick intrusive unit from 421.95m downhole including a 2.4m interval of nickel-copper sulphides from 434.6m.

The downhole EM survey in MAD201 identified three very strong conductors located up-dip towards the high-grade intersection in MAD199. The conductors are modelled with conductivity of 120,400 Siemens, 30,000 Siemens and 23,000 Siemens, respectively. This supports the potential for the presence of more massive sulphides along the 125m down-plunge extent between these two drill holes.

See our ASX Release dated 27 May 2021 *Nickel-Copper Sulphides Intersected Down-Plunge* for further details of the new EM conductors identified from MAD201.

Figure 2 below shows a schematic log of the downhole geology of MAD199.

The geology and mineralisation display a largely preserved section of a mineralised intrusive unit. Classic intrusive features are observed including the presence of leuconorite and gabbro norite which are known to host major intrusive nickel sulphide deposits in Western Australia.

The nickel-copper sulphide mineralisation increases in volume towards the basal contact, with massive sulphides on the contact, and represents a textbook profile for preserved nickel sulphide deposits.

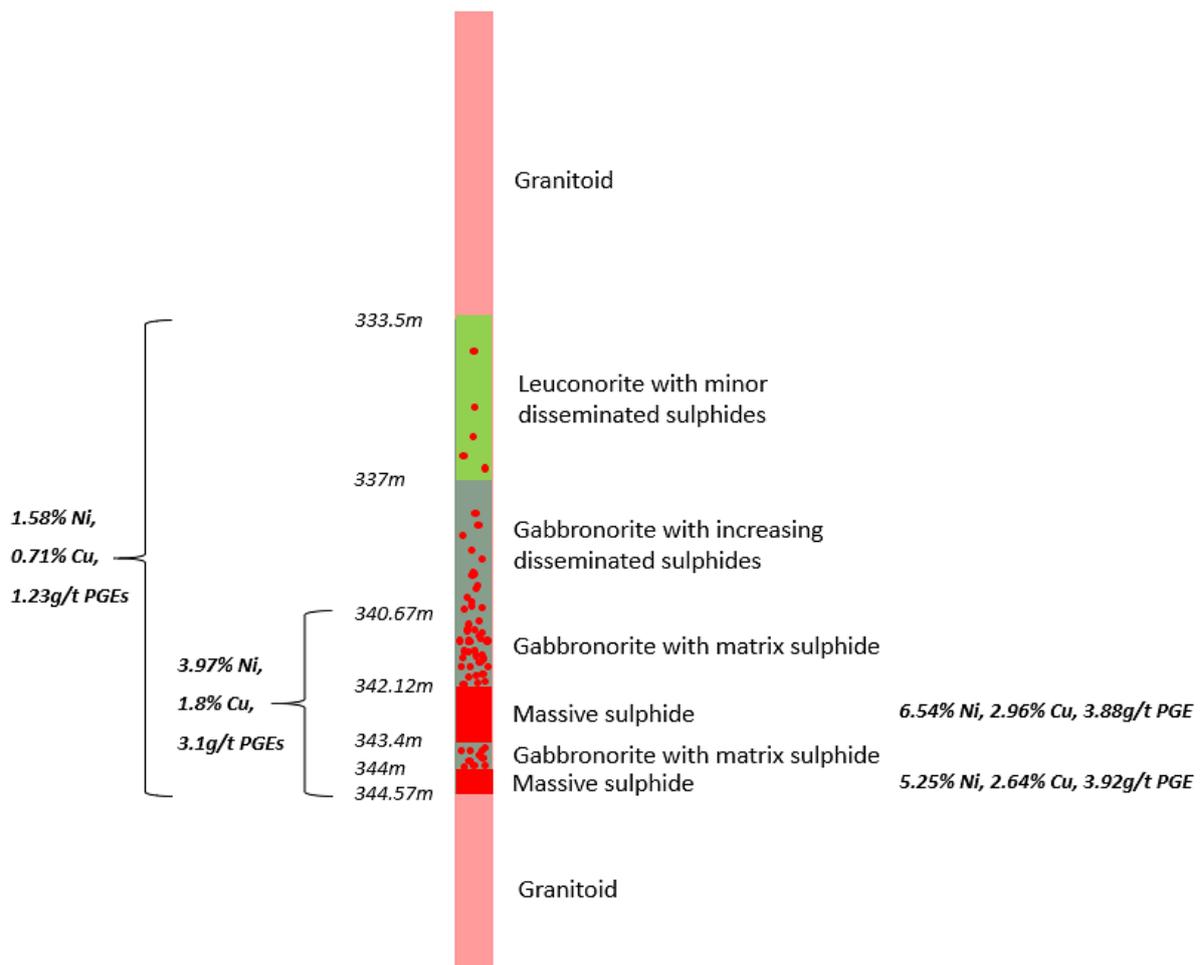


Figure 2 – schematic log of MAD199 downhole geology

## NEW GEOPHYSICAL SURVEYS

### **Deep Ground Penetrating Radar (DGPR) survey:**

Acquisition of the field data for the DGPR survey has been completed with survey data now being processed and modelled. A total of 37.5 line kilometres of data was captured in the survey.

The DGPR survey measures a combination of rock dielectric and conductivity to map below-ground lithology and metal deposits in high-resolution. Case studies have shown that the DGPR can successfully map base metal mineralisation in the top 100m to 150m from surface, particularly in granite terrain like the Cathedrals Belt.

Figure 3 shows the area surveyed by the DGPR. The survey focused mainly on the Radar, Cathedrals and Investigators Prospects where shallow nickel-copper sulphides have been discovered with electromagnetics and drilling.

The DGPR data is expected to allow St George to model the high-grade massive sulphides in 3D which would greatly assist in resource definition drilling and targeting extensions to known mineralisation.

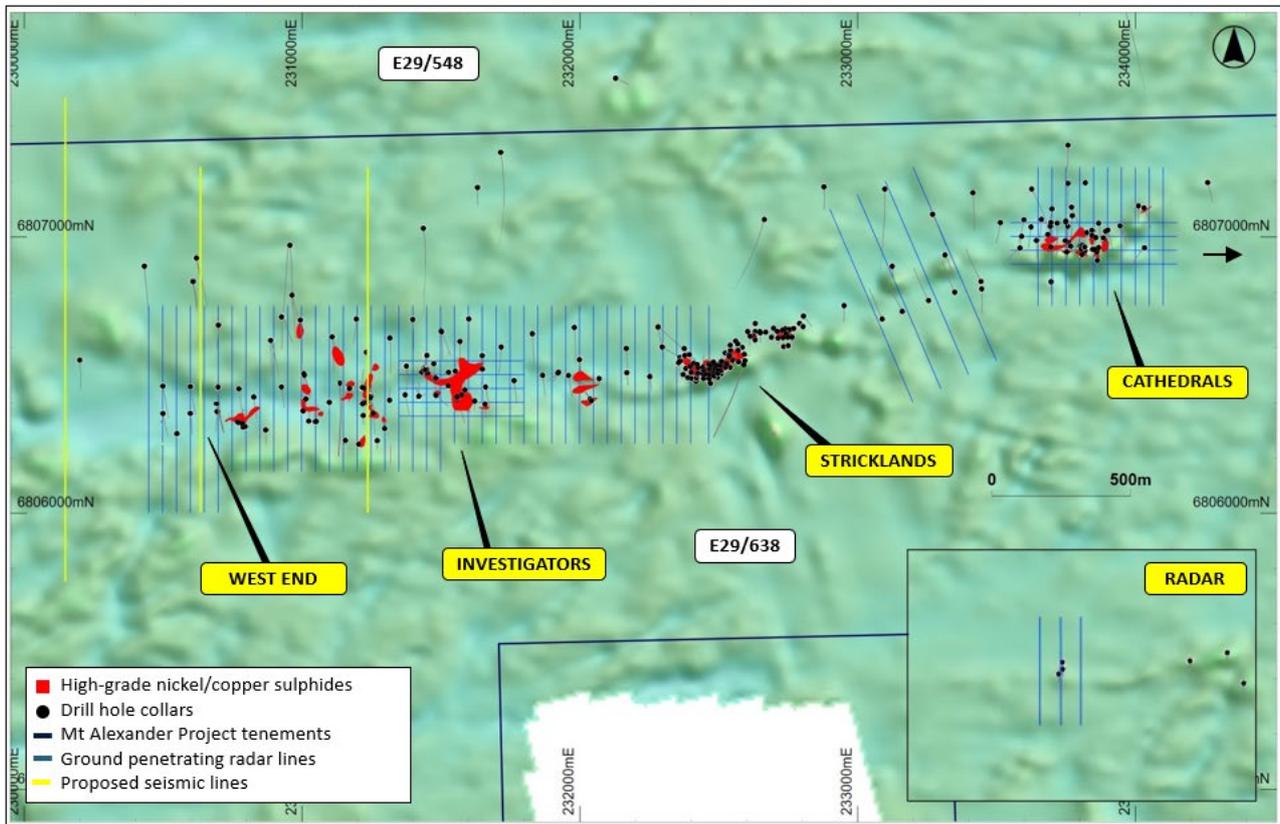


Figure 3 – map (against magnetic RTP 1VD data) showing survey lines for the latest DGPR and seismic surveys as well as areas of known nickel-copper sulphides

**Seismic survey:**

A new, cutting-edge seismic technique, called eVibe and offered exclusively by Ultramag Geophysics, will be trialled at the Cathedrals Belt. Conventional seismic techniques are considered not feasible for use at the Cathedrals Belt because of their relatively higher cost and lower resolution.

The latest eVibe seismic applies a fraction of the force compared to a conventional seismic hydraulic system but delivers high quality data to a similar depth. The cost of eVibe is significantly lower than conventional seismic.

Figure 3 shows the proposed seismic lines at the Investigators and West End Prospects. These are areas where the surface EM surveys have limited effectiveness because of conductive cover. Also, the intrusive host unit of the Cathedrals Belt is interpreted to dip towards the north-northwest – making this area a high-priority search area for potential deeper mineralisation.

The seismic survey at the Cathedrals Belt is scheduled to be completed in mid-July 2021.

## DRILLING OF GRAVITY TARGETS CONFIRMS INTRUSIVE ROCKS

MAD202 was drilled to test a large coincidental gravity and magnetic anomaly at West End. See our ASX Release dated 27 May 2021 *Nickel-Copper Sulphides Intersected Down-Plunge* for details of this target.

MAD202 was drilled to a downhole depth of 444.1m and intersected intrusive rocks from 421.95m to 436.8m. The remainder of the hole intersected granite rocks.

The volume of intrusive rocks intersected in MAD202 is unlikely to explain the large gravity high. Potentially, dense rocks giving rise to the gravity high may be present below and to the north-west of the drill hole. A DHEM survey will be completed in MAD202 soon to investigate for any conductive material around the drill hole.

The intersection of intrusive rocks in MAD202 confirms the host intrusive unit extends west into an area of the Cathedrals Belt that remains undrilled. The seismic survey and ongoing DHEM surveys will be important in identifying any mineral deposits in this area.

## 2021 DRILL PROGRAMME

Daily drill rates for MAD202 were lower than usual because of single-shift operations during late May and unscheduled maintenance. We are seeking to source a replacement diamond rig to resume drilling at Mt Alexander.

Table 2 shows details for drill holes completed in the 2021 diamond drill programme. Additional holes are being planned and prioritised to test the growing portfolio of nickel-copper sulphide targets.

Based on the intersection angle of the drilling with the modelled intrusive unit, downhole widths noted are interpreted to be close to true widths.

<i>Hole ID</i>	<i>Prospect</i>	<i>East</i>	<i>North</i>	<i>RL</i>	<i>Depth</i>	<i>Azi</i>	<i>Dip</i>
<b>MAD194</b>	Investigators	231475.7	6806540	423.6562	201.2	177	-70
<b>STD009</b>	Stricklands	232476	6806521	442.793	70.1	360	-90
<b>STD010</b>	Stricklands	232420.8	6806488	439.39	66.8	35	-78
<b>STD011</b>	Stricklands	232529.4	6806540	445.52	60.6	229	-85
<b>STD012</b>	Stricklands	232624.1	6806642	444.625	85	176	-84
<b>STD013</b>	Stricklands	232466.1	6806516	443.33	59.1	179	-85
<b>STD014</b>	Stricklands	232466	6806517	442.793	57.7	030	-86
<b>STD015</b>	Stricklands	232622	6806646	445	83.9	130	-80
<b>MAD195</b>	Investigators	230966	6806783	420	370	176	-68
<b>MAD196</b>	West End	230623	6806922	415	550	175	-68
<b>MAD197</b>	West End	230434.3	6806892.3	413.6	603.02	180	-70
<b>MAD198</b>	Stricklands	232276.3	6806799.0	447.8	415.10	145	-65
<b>MAD199</b>	Investigators	230966.0	6806788.0	416.0	378.8	165	-66
<b>MAD200</b>	West End	230622.0	6806923.0	413.0	543.1	171	-76
<b>MAD201</b>	Investigators	230954.2	6806970.9	417.8	470.1	180	-60
<b>MAD202</b>	West End	230336.6	6806716.0	413.8	444.1	175	70

*Table 2 – drill hole details for diamond holes completed in 2021*

In the meantime, drilling continues at St George’s 100%-owned Paterson Project in the highly prospective Paterson region in WA’s north. For further details about the Company’s 10,000m reverse circulation (RC) programme at the Paterson Project, see our ASX release dated 8 June 2021 *Maiden Drill Campaign Begins at Paterson Project*.

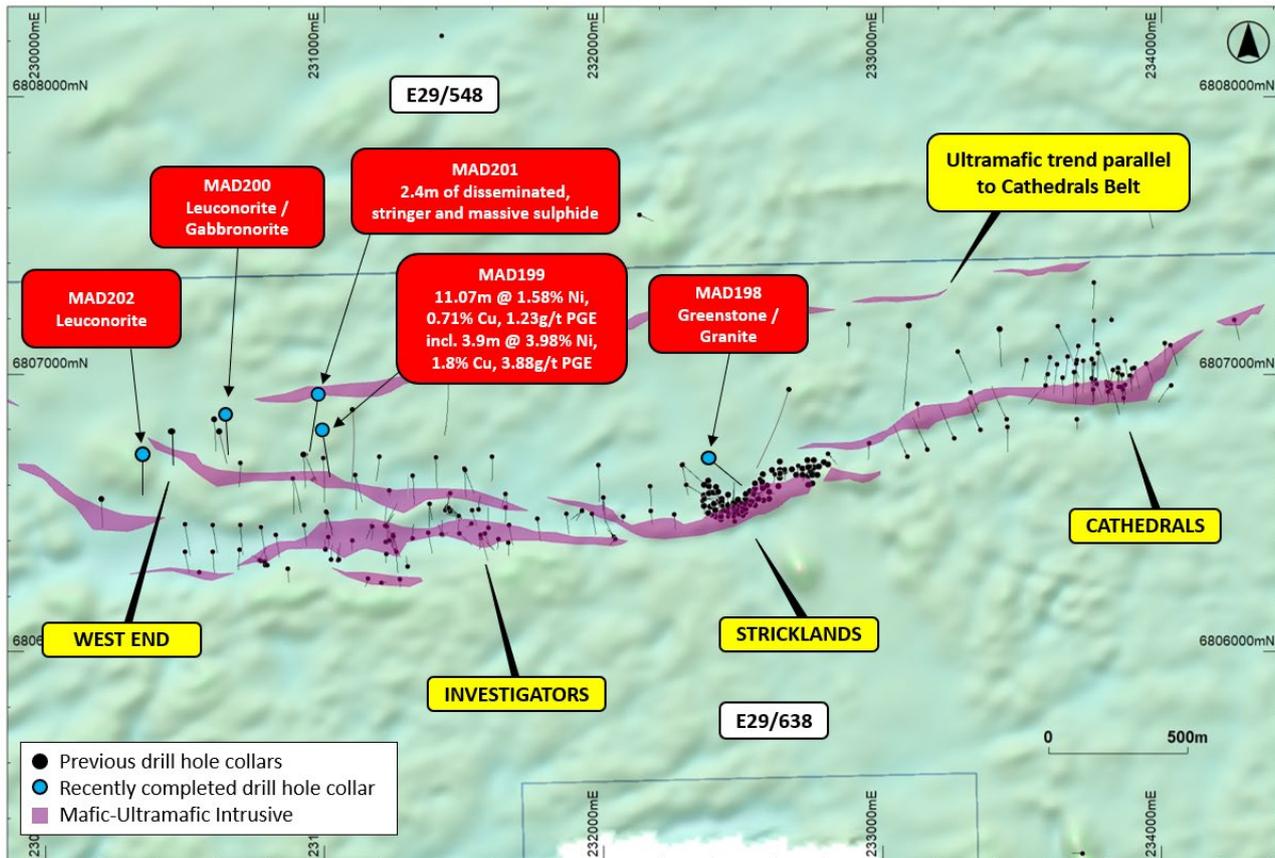


Figure 4 – map (against magnetic RTP 1VD data) showing drilling along the Cathedrals Belt and highlighting the most recently completed drill holes

### COVID-19:

St George continues to manage its operations in compliance with COVID-19 regulations issued by State and Commonwealth authorities. We will continue to proactively manage drilling and other field programmes to protect the health and safety of our team and service providers.

Border restrictions and snap lockdowns in Western Australia and elsewhere have impacted on the movement of personnel for drill rig crews, which has been constraining the availability of drill rigs. St George is in close contact with its drilling contractors to best manage access and continuity to drilling services.

### 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 six granted exploration licences – E29/638, E29/548, E29/962, E29/954, E29/972 and E29/1041 – which are a contiguous package. A seventh granted exploration licence – E29/1093 – is located to the south-east of the core tenement package.

The Cathedrals, Stricklands, Investigators and Radar nickel-copper-cobalt-PGE discoveries are located on E29/638, which is held in joint venture by St George (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. All other Project tenements are owned 100% by St George.

Authorised for release by the Board of St George Mining Limited.

**For further information, please contact:**

**John Prineas**

Executive Chairman

St George Mining Limited

+61 411 421 253

[john.prineas@stgm.com.au](mailto:john.prineas@stgm.com.au)

**Peter Klinger**

Media and Investor Relations

Cannings Purple

+61 411 251 540

[pklinger@canningspurple.com.au](mailto:pklinger@canningspurple.com.au)

**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.