

21 October 2020

## MULTIPLE STRONG EM CONDUCTORS IDENTIFIED IN UNEXPLORED AREA OF MT ALEXANDER NICKEL-COPPER SULPHIDE PROJECT

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- Two very strong off-hole electromagnetic (EM) conductors – modelled with conductivity of 49,000 and 16,200 Siemens respectively – have been identified by the downhole EM (DHEM) survey in MAD184
  - The new EM conductors were detected approximately 475m downhole in MAD184 and represent the deepest conductors ever identified at Mt Alexander
  - MAD184 was drilled at the West End Prospect, in an area with no prior drilling and more than 800m north-west of known massive sulphides in the Cathedrals Belt
  - The electrical signature of the new conductors is consistent with a massive sulphide source
  - All other EM conductors with similar characteristics in the Cathedrals Belt have been confirmed by drilling to be massive sulphides with high grades of nickel, copper, cobalt and PGEs
  - Modelling of the DHEM survey data for MAD184 has defined two discrete EM plates for drill testing with the EM anomalism open in all directions and further drilling required to fully test the scale of the potential massive sulphide source
  - Drilling of the new EM conductors is scheduled to commence early next week with outstanding potential to make a new discovery of massive sulphide mineralisation
  - New EM conductors further confirm the camp-scale potential of the +16km long Cathedrals Belt with four shallow high-grade nickel-copper sulphide deposits already discovered and new high priority targets being established
  - DHEM surveys in other recently completed drill holes have also identified additional EM anomalies which are being assessed and prioritised for drill testing
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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 exciting exploration results at its flagship Mt Alexander Project, located in the north-eastern Goldfields.

### SIGNIFICANT EM CONDUCTORS IDENTIFIED

The current drill programme at Mt Alexander is focused on deeper drilling to test conductive features identified by a number of geophysical surveys completed by St George across the Cathedrals Belt. The drill targets are located below and down-dip from the shallow high-grade deposits already discovered in the Belt.

DHEM surveys on the completed drill holes are being used to identify discrete EM conductors for follow-up drilling.

MAD184 was completed to a downhole depth of 497.8m to test a broad single component (Z) EM anomaly identified by the surface SQUID MLEM survey carried out earlier this year. The drill hole intersected a 23.2m thick mafic-ultramafic unit from 444.5m downhole. This was highly encouraging because these types of intrusive rocks are known to host massive sulphide deposits in other parts of the Cathedrals Belt.

More significantly, the drill hole intersected 5m of disseminated and blebby nickel-copper sulphides from 462.7m downhole. These disseminated and blebby sulphides can represent the halo around proximal massive sulphide mineralisation and support the potential for the presence of higher-grade mineralisation nearby.

The DHEM survey in MAD184 recorded a very strong off-hole anomalous response to the east and down dip at 475m downhole. The response was seen in the mid to late times with a modelled conductivity of 49,000 Siemens, which is consistent with a massive sulphide source. A second anomaly was detected to the north-west of the drill hole and has a modelled conductivity of 16,200 Siemens.

Importantly, given the large distance of MAD184 from other drill holes, any potential high-grade mineralisation at this location is open in the direction beyond the anomalies.

The modelled plates for these new EM conductors are interpreted to represent the strongest part of the anomalous EM responses and are a reliable targeting tool to test for the presence of massive sulphides. Modelling cannot accurately predict the geometry of any massive sulphide deposit that may be present and is not a definitive measure of the scale of all potential mineralisation.

The new DHEM conductors provide potential to significantly increase the footprint of known high-grade mineralisation in the large mineral system at the Cathedrals Belt.

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

"Our deep drill programme is delivering excellent results with thick intrusive-style rocks and nickel-copper sulphide mineralisation intersected at depths not previously explored.

"The downhole EM surveys have delivered the breakthrough moment with two new exceptional conductors identified from MAD184 that are both interpreted to represent massive nickel-copper sulphides.

"The MAD184 conductors are particularly exciting as they are the deepest conductors ever identified in the Cathedrals Belt and located 800m to the west of previously intersected massive sulphides on the Cathedrals Belt.

"The potential discovery of massive sulphides at these new conductors could be our most important discovery to date as it would confirm the continuity of the high-grade mineralisation at depth and upgrade the western extension of the Cathedrals Belt – which covers the 2.5km long West End Prospect that straddles the major Ida Fault – as a fertile and highly prospective area for further mineralisation.

"The Cathedrals Belt is interpreted to dip to the north-west at about 40 degrees so, from a geological perspective, the MAD184 conductors are in an ideal location for the presence of massive sulphide mineralisation down-dip from the high-grade mineralisation already discovered near surface.

"With a 100% success rate in testing these kinds of conductors in the Cathedrals Belt, we are confident that our next significant discovery of massive nickel-copper sulphides is imminent."

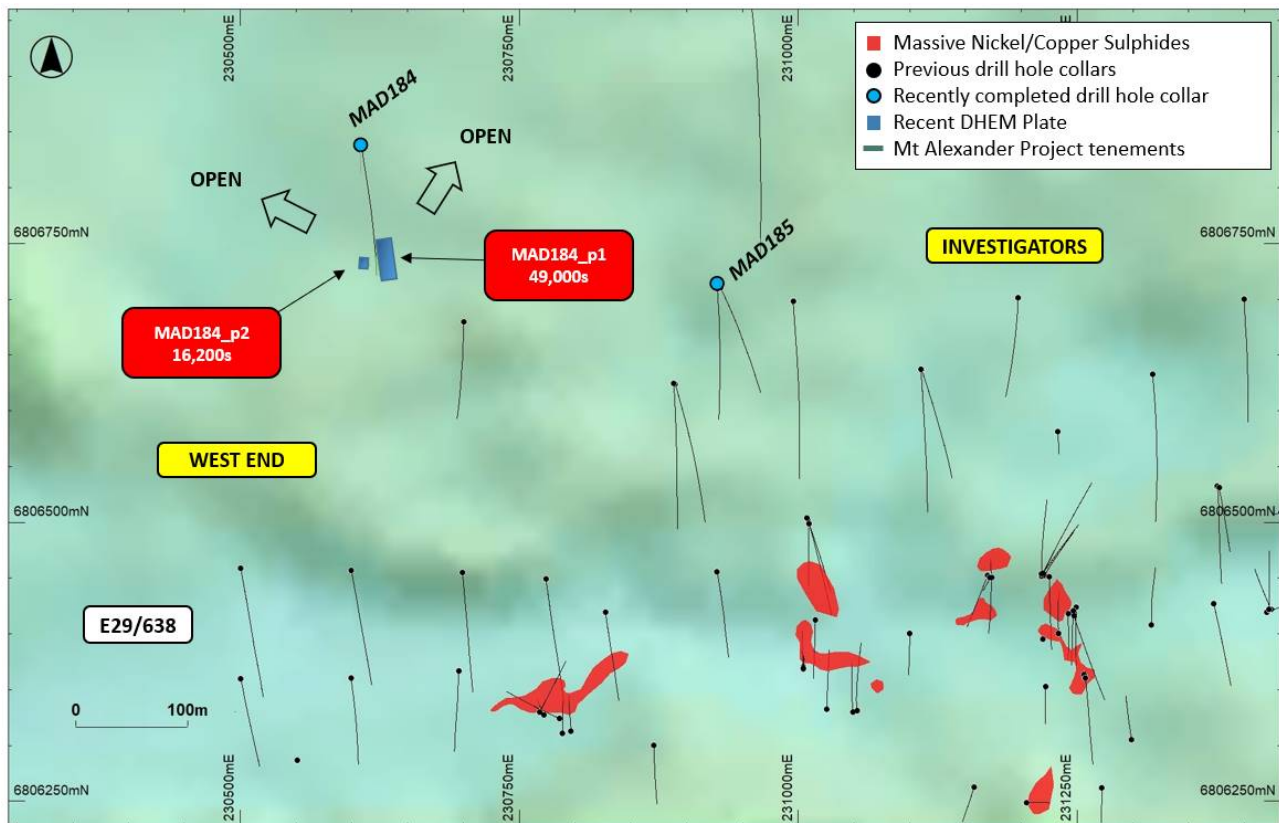


Figure 1 – plan view of the western part of the Cathedrals Belt (against TMI RTP 1VD) showing the new EM conductors at the West End Prospect as well as massive nickel-copper sulphides already discovered.

**DRILLING AND DHEM – DELIVERING EXPLORATION SUCCESS**

The results in the current drill programme have confirmed an extensive intrusive mineral system at the Cathedrals Belt with strong potential for additional massive sulphide deposits to be present below the shallow high-grade deposits already discovered.

Surface EM surveys completed over the MAD184 area did not detect the new strong DHEM conductors. This was most likely because of the conductive cover that extends west of Investigators and over West End, as well as the depth of these new conductors.

The absence of any strong conductive response in the surface EM surveys, particularly in this area, does not preclude the presence of nickel-copper sulphides at depth.

Drilling and DHEM surveys have now been confirmed as an effective way to explore at depth and will continue to be used across the Cathedrals Belt.

In respect of drill holes completed in the current programme and already reported, the following DHEM surveys have been completed:

**MAD180, MAD181, MAD183 and MAD186:**

The survey recorded weak off-hole responses in these holes. These responses are interpreted to be reflective of either nearby structures/faults or of sulphides beyond the effective detection limit of the DHEM survey.

The DHEM data is being further assessed in conjunction with other geophysical data and drill data to better consider the potential for follow-up of the anomalous responses.

**MAD185:**

The hole was blocked at 325m downhole and the survey could not be completed. The data indicated that a strong EM response was approaching at 325m.

MAD185 intersected a 25m thick mafic-ultramafic from 300m downhole including 15m of disseminated and blebby nickel-copper sulphides. This is an encouraging sign for potential massive sulphides around the hole.

Attempts will be made to re-enter the drill hole and provide access for the DHEM probe.

**MAD182 and MAD187:**

No anomalous responses in the DHEM data.

**Scope of DHEM Surveys:**

The DHEM survey can reliably see 50m to 75m around the hole, depending on ground conditions.

The absence of an anomalous response in a DHEM survey does not preclude the presence of mineralisation around a hole and beyond the detection limit of the DHEM survey.

**NEW DRILL HOLES**

A further four drill holes were completed since our last exploration update in ASX Release dated 9 September 2020 *More Thick Intercepts of Mineralised Units at Mt Alexander*. The results for these are summarised below.

All the additional drill holes intersected varying thicknesses of intrusive-style rocks, confirming the very extensive target horizon for potential nickel-copper sulphide mineralisation.

DHEM surveys of these new holes have yet to be completed.

**MAD188:**

MAD188 was drilled at Stricklands to a downhole depth of 600.4m to test a conductive feature modelled from the Magnetotelluric (MT)/Audio-magnetotelluric (AMT) surveys completed earlier this year.

The hole intersected thin intervals (<2m) of mafic-ultramafic rocks at 210m and 418m downhole. The remainder of the hole intersected granitic rocks. No significant sulphide mineralisation was intersected.

**MAD189:**

MAD189 was drilled at Investigators to a downhole depth of 501.9m to test a conductive feature modelled from the MT/AMT surveys.

The hole intersected thin intervals (<2m) of mafic-ultramafic rocks at 41m, 55m, 58m and 435m downhole. The remainder of the hole intersected granitic rocks. No significant sulphide mineralisation was intersected.

**MAD190:**

MAD190 was drilled at Investigators to a downhole depth of 237.9m to test a conductive plate identified from the DHEM survey in MAD140.

The hole intersected less than 1m of ultramafic from 213m downhole. The remainder of the hole intersected granitic rocks. No significant sulphide mineralisation was intersected.

## MAD191:

MAD191 was drilled at Investigators to a downhole depth of 280m to test the stratigraphy in the underexplored eastern margin of the prospect area.

The hole intersected intrusive rocks (xenodyke/mafic dyke) from 164.3m to 169m downhole. The remainder of the hole intersected granitic rocks. No significant sulphide mineralisation was intersected.

These latest holes are interpreted to have intersected the margin of the intrusive rocks at the target horizon.

DHEM surveys of these new holes will be completed to investigate for potential mineralisation around the holes.

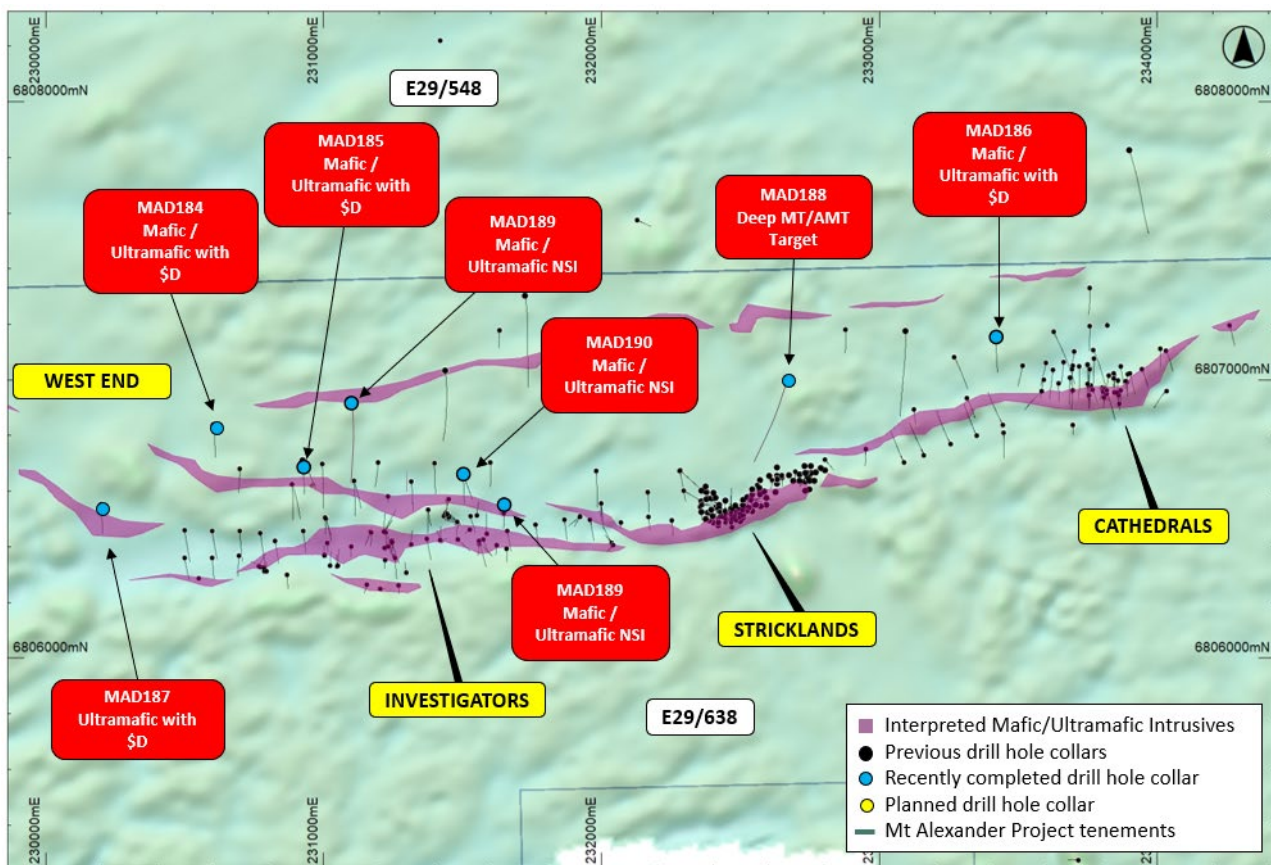


Figure 2 – plan view of the Cathedrals Belt showing areas of completed and planned drilling, overlaying interpreted geology and magnetics (TMI RTP 1VD).

## DRILL PROGRAMME

Drilling at Mt Alexander has paused while DHEM surveys are completed. Diamond drilling is scheduled to resume this weekend with one diamond rig due to arrive at site by Friday.

The first hole to be drilled will test the 49,000 Siemens conductor identified from the DHEM survey in MAD184, followed by a hole to test the 16,200 Siemens conductor from MAD184.

Further holes will be planned based on the results from DHEM surveys in the new holes as well as in MAD185.

Table 1 below contains drill hole details for the holes completed in the current campaign to test new targets.

Hole ID	Prospect	East	North	RL	Depth	Azi	Dip
<b>MAD179</b>	Investigators	230928	6806709	418	351.9	180	-70
<b>MAD180</b>	Investigators	231439	6807031	423	850	180	-90
<b>MAD180W1</b>	Investigators	231442.0	6806869.6	-71.6	357.1	180	-70
<b>MAD181</b>	Investigators	231726	6807301	425	794.5	180	-65
<b>MAD182</b>	Cathedrals	233960	6807824	412	700.4	170	-65
<b>MAD183</b>	Fairbridge	233095.0	6807173.3	415	693.5	180	-65
<b>MAD184</b>	West End	230606	6806836	415	497.8	180	-75
<b>MAD185</b>	Investigators	230930	6806710	418	361.2	154	-72
<b>MAD186</b>	Cathedrals	233418	6807161	425	399.6	180	-70
<b>MAD187</b>	West End	230201	6806550	414	253	180	-65
<b>MAD188</b>	Stricklands	232665.1	6807061	430	600.4	196	-65
<b>MAD189</b>	Investigators	230958	6806968	421	501.9	180	-65
<b>MAD190</b>	Investigators	231570	6806620	425	240.7	180	-70
<b>MAD191</b>	Investigators	231718	6806600	427	280	180	-70

*Table 1 – Drill hole details for diamond holes completed in the current campaign to test new targets.*

**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.

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 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.

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

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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.