

14 September 2020

#### **EXCELLENT METALLURGICAL TEST WORK RESULTS FOR MT ALEXANDER**

- Preliminary test work completed in Perth confirms excellent metallurgical recoveries and concentrate grades for massive and disseminated nickel-copper sulphides from the Investigators Prospect
- Separate clean saleable nickel and copper concentrates were generated in a conventional flotation circuit test
- Very high recovery of Platinum Group Elements (PGEs) in both the nickel and copper concentrates including from disseminated sulphides
- Nickel concentrate produced at the following grades:
  - ➤ 16.2% Ni from massive sulphides at 90.6% recovery with 6.26 g/t total PGEs
  - > 13.5% Ni from disseminated sulphides at 62% recovery with 8.10 g/t total PGEs
- Copper concentrate produced at the following grades:
  - > 30.3% Cu from massive sulphides at 90.6% recovery with 7.39 g/t total PGEs
  - > 25.1% Cu from disseminated sulphides with 59.8% recovery with 18.1 g/t total PGEs
- Strong payable cobalt recoveries in the nickel concentrates with 0.59% Co in concentrate from massive sulphides and 0.50% Co in concentrate from disseminated sulphides
- High silver values of 52 g/t Ag in copper concentrate produced from massive sulphides
- Ore samples are also amenable to bulk flotation with similar recoveries, providing optionality for processing and marketing strategies for potential project development
- Detailed metallurgical test work is also underway in Canada on ore samples from the Stricklands deposit for incorporation in the scoping study for a potential mining operation at Mt Alexander

Growth-focused Western Australian nickel company St George Mining Limited (ASX: **SGQ**) ("**St George**" or "**the Company**") is pleased to announce excellent results from metallurgical test work on nickel-copper sulphide mineralisation from its flagship Mt Alexander Project, located in the north-eastern Goldfields.

Preliminary metallurgical test work has been completed by Strategic Metallurgy Pty Ltd in Perth on samples of massive and disseminated mineralisation from drill hole MAD177 completed at the Investigators Prospect.

The objective of this test work was to assess if nickel and copper could be recovered into separate saleable concentrates by flotation process, and to determine the PGE deportment in the concentrates. The results are very favourable and are likely to have a positive impact on project economics for a potential mining operation at Mt Alexander.



#### **Excellent Metallurgical Results**

Two composites representing both massive and disseminated mineralisation from MAD177 were assessed as part of the test work programme. The head grades for these composites are presented below.

| Composite sample | Ni<br>% | Cu<br>% | Co<br>% | Fe<br>% | S<br>% | Mg<br>% | Pt<br>g/t | Pd<br>g/t |
|------------------|---------|---------|---------|---------|--------|---------|-----------|-----------|
| Massive          | 5.89    | 2.58    | 0.19    | 53.5    | 33.6   | 0.04    | 0.60      | 2.45      |
| Disseminated     | 1.59    | 0.39    | 0.06    | 16.2    | 6.60   | 12.9    | 0.35      | 1.25      |

Separate nickel and copper concentrates were produced from each of the massive and disseminated sulphide samples with the following grades:

| Nickel Concentrate          |         |                |         |         |                   |
|-----------------------------|---------|----------------|---------|---------|-------------------|
| Metal Grades                | Ni<br>% | Ni<br>recovery | Cu<br>% | Co<br>% | Total<br>PGEs g/t |
| Massive Ni Concentrate      | 16.2    | 90.6           | 0.66    | 0.59    | 6.26              |
| Disseminated Ni Concentrate | 13.6    | 62.0           | 0.37    | 0.50    | 8.10              |

| Copper Concentrate          |         |                |         |         |                   |           |
|-----------------------------|---------|----------------|---------|---------|-------------------|-----------|
| Metal Grades                | Cu<br>% | Cu<br>recovery | Ni<br>% | Co<br>% | Total<br>PGEs g/t | Ag<br>g/t |
| Massive Cu Concentrate      | 30.3    | 90.6           | 1.07    | 0.03    | 7.39              | 52        |
| Disseminated Cu Concentrate | 25.1    | 59.8           | 0.36    | 0.02    | 18.1              | 0         |

An analysis of the PGE content confirms significant values for a number of highly sought after PGEs. In particular, Palladium and Rhodium – both of which are currently trading at historically elevated prices – occur at levels that are expected to attract very valuable smelter credits.

A summary of the PGEs in the nickel and copper concentrates is provided below.

| Detailed PGE analysis       | Au   | Ir   | Os   | Pd   | Pt   | Rh   | Ru   | Total    |
|-----------------------------|------|------|------|------|------|------|------|----------|
|                             | g/t  | PGEs g/t |
| Massive Cu Concentrate      | 0.14 | 0.02 | 0.00 | 5.26 | 1.82 | 0.14 | 0.02 | 7.39     |
| Disseminated Cu Concentrate | 2.78 | 0.02 | 0.00 | 13.6 | 1.52 | 0.01 | 0.04 | 18.1     |
| Massive Ni Concentrate      | 0.09 | 0.02 | 0.00 | 5.01 | 0.78 | 0.22 | 0.13 | 6.26     |
| Disseminated Ni Concentrate | 0.58 | 0.03 | 0.01 | 6.16 | 0.88 | 0.23 | 0.21 | 8.10     |

Separate clean concentrates were produced for nickel and copper from each of the massive and disseminated sulphide samples. The disseminated sulphides included elevated magnesium indicative of talc, which was successfully depressed in the flotation process resulting in a clean, saleable nickel concentrate being produced from the disseminated sulphides.

The important Fe:MgO ratio was more than 100 in the nickel concentrate from the massive sulphides – an excellent result. The Fe:MgO ratio for the nickel concentrate from the disseminated sulphides was 6.8 – lower but still acceptable for a saleable concentrate.

The potential blending of the two concentrates has not been assessed but is likely to provide an opportunity to optimise the overall nickel concentrate produced. This will be further investigated in more detailed metallurgical test work.



Although the test work programme targeted split flotation of nickel and copper, the ore samples are just as amenable to bulk flotation techniques with similar recoveries. The individual metal grades for any bulk flotation are yet to be assessed. The availability of bulk flotation is likely to provide alternative strategies for the processing and marketing of ore recovered from any potential mining operation.



Figure 1 - drill core from MAD177 at approx. 185m downhole showing massive sulphides with coarse grained pentlandite and chalcopyrite.

Assays returned:

10.5m @ 4.82% Ni, 1.67% Cu, 0.15% Co and 2.87 g/t total PGEs from 182.5m,

including

4m @ 7.53% Ni, 2.47% Cu, 0.23% Co and 3.92 g/t total PGEs from 186m.

Platinum group metals include high levels of Palladium and Rhodium with assays indicating total PGEs of 10.5m @ 2.33g/t Pd and 0.08g/t Rh from 182.5m including 4m @ 3.23g/t Pd and 0.1g/t Rh from 186m.

Silver was also elevated in the massive sulphides with **10.5m @ 8 g/t Ag from 182.5m**.

Both massive sulphides and disseminated sulphides from MAD177 were included in the latest metallurgical test work.

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

"We are delighted with the early results of this metallurgical test work programme. The high quality of our Mt Alexander mineralisation has been confirmed with separate clean nickel and copper concentrates produced from both the massive and disseminated sulphides.

"Importantly, we are seeing high values of PGEs, cobalt and silver – all of which could generate significant credits and have a positive impact on the economics for a potential mining operation at Mt Alexander which is currently being assessed by by ongoing studies.

"We are confident that the metallurgical results can be further optimised as we undertake more detailed test work and progress marketing studies to maximise potential net smelter revenues."



#### The Test Work for Investigators

The composite sample sizes comprised 34.8kg of massive sulphide ore and 16.2kg of disseminated sulphide mineralisation. Samples were prepared to a primary grind size of P<sub>80</sub> 75µm.

Standard reagents were applied to the samples and all sulphide minerals floated readily. Eleven flotation tests were completed – six on the massive sulphides and five on the disseminated sulphides. Rougher concentrates were processed through a cleaner and scavenger process to produce a final concentrate.

The test work demonstrated the ability to produce separate clean nickel and copper concentrates at saleable grades from both the massive and disseminated sulphide mineralisation. The results of this work provide an initial indication as to the metal recoveries and concentrate grades.

Detailed work will be completed in due course and include further optimisation work. A broader selection of drill holes at the Investigators Prospect will be used to provide a more definitive metallurgical assessment for use in a scoping study for the potential mining of ore at the Investigators Prospect.



Figure 2 – photos of flotation tests for massive sulphides: on left – copper flotation; on right – nickel flotation.

#### Advancing to a Mine – Stricklands Prospect

Metallurgical test work is also underway with XPS in Canada on the mineralisation from the shallow, high-grade Stricklands deposit.

XPS has been engaged by St George to assess the metallurgical performance of the Stricklands mineralisation and to develop a flowsheet for the potential mining and processing of the Stricklands ore.

Eight PQ-size diamond core drill holes were completed during June 2020 at Stricklands with approximately 300kg of samples from these holes delivered to XPS for detailed test work. These are considered representative samples across the orebody at Stricklands which will enable a robust metallurgical assessment that can be incorporated directly into the scoping study for a potential mine at Stricklands.

Of the shallow high-grade discoveries along the Cathedrals Belt, Stricklands is considered the most amenable to a potential low-cost, high-margin open-pit mining operation and is the first of the deposits to be assessed under a formal scoping study.

We expect to provide results from the scoping study in Q4 2020.



#### **COVID-19**:

St George is managing 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.

#### **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.

# The following section is provided for compliance with requirements for the reporting of exploration results under the JORC Code, 2012 Edition.

# **Section 1 Sampling Techniques and Data**

(Criteria in this section apply to all succeeding sections)

| Criteria               | JORC Code explanation  | Commentary  |
|------------------------|--|---|
| Sampling<br>techniques | Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry  | Drilling programmes are completed by Reverse Circulation (RC) and Diamond Core drilling.  |
|                        | standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. | Diamond Core Sampling: The sections of the core that are selected for assaying are marked up and then recorded on a sample sheet for cutting and sampling at the certified assay laboratory. Samples of PQ, HQ or NQ2 core are cut just to the right of the orientation line where available using a diamond core saw, with half core sampled lengthways for assay.   |
|                        |  | $\it RCSampling:$ All samples from the RC drilling are taken as 1m samples for laboratory assay.  |
|                        |  | Appropriate QAQC samples (standards, blanks and duplicates) are inserted into the sequences as per industry best practice. Samples are collected using cone or riffle splitter. Geological logging of RC chips is completed at site with representative chips being stored in drill chip trays.   |
|                        |  | Metallurgical testing has been completed to a Scoping level [Class 5] on composited samples considered representative of the main model domains.  |
|                        | Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.  | RC Sampling: Samples are taken on a one metre basis and collected using uniquely numbered calico bags. The remaining material for that metre is collected and stored in a green plastic bag marked with that specific metre interval. The cyclone is cleaned with compressed air after each plastic and calico sample bag is removed. If wet sample or clays are encountered then the cyclone is opened and cleaned manually and with the aid of a compressed air gun. A blank sample is inserted at the beginning of each hole, and a duplicate sample is taken every 50 <sup>th</sup> sample. A certified sample standard is also added according to geology, but at no more than 1:50 samples. |
|                        |  | Geological logging of RC chips is completed at site with representative chips being stored in drill chip trays. Downhole surveys of dip and azimuth are conducted using a single shot camera every 30m, and using a downhole Gyro when required, to detect deviations of the hole from the planned dip and azimuth. The drill-hole collar locations are recorded using a hand-held GPS, which has an accuracy of +/-5m. All drill-hole collars will be surveyed to a greater degree of accuracy using a certified surveyor at a later date.   |
|                        |  | Diamond Core Sampling: For diamond core samples, certified sample standards were added as every 25 <sup>th</sup> sample. Core recovery calculations are made through a reconciliation of the actual core and the driller's records. Downhole surveys of dip and azimuth were conducted using a single shot camera every 30m to detect deviations of the hole from the planned dip and azimuth. The drill-hole collar locations are recorded using a hand-held GPS, which has an accuracy of +/- 5m.   |
|                        |  | PQ diameter drill holes were drilling primarily for metallurgical sampling with half core used for creating representative composites for test work.  |

| Criteria                 | JORC Code explanation  | Commentary  |
|--------------------------|--|---|
|                          | Aspects of the determination of mineralisation that are Material to the Public Report.  In cases where 'industry standard' work has been done this would be relatively simple (eg  | RC Sampling: A 1m composite sample is taken from the bulk sample of RC chips that may weigh in excess of 40 kg. Each sample collected for assay typically weighs 2-3kg, and once dried, is prepared for the laboratory as per the Diamond samples below.  |
|                          | cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.   | Diamond Core Sampling: Diamond core (both HQ and NQ2) is half-core sampled to geological boundaries no more than 1.5m and no less than 10cm. Samples less than 3kg are crushed to 10mm, dried and then pulverised to 75 $\mu$ m. Samples greater than 3kg are first crushed to 10mm then finely crushed to 3mm and input into the rotary splitters to produce a consistent output weight for pulverisation.   |
|                          |  | Pulverisation produces a 40g charge for fire assay. Elements determined from fire assay are gold (Au), platinum (Pt) and palladium (Pd) with a 1ppb detection limit. To determine other PGE concentrations (Rh, Ru, Os, Ir) a 25g charge for nickel sulphide collect fire assay is used with a 1ppb detection limit.  |
|                          |  | Other elements will be analysed using an acid digest and an ICP finish. These elements are: Ag, Al, As, Bi, Ca, Cd, Co, Cr, Fe, K, Li, Mg, Mn, Mo, Nb, Ni, P, Pb, S, Sb, Sn, Te, Ti, V, W, Zn. The sample is digested with nitric, hydrochloric, hydrofluoric and perchloric acids to effect as near to total solubility of the sample as possible. The sample is then analysed using ICP-AES or ICP-MS.  |
|                          |  | LOI (Loss on Ignition) will be completed on selected samples to determine the percentage of volatiles released during heating of samples to 1000°C.   |
| Drilling<br>techniques   | Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diametre, triple or standard tube, depth of diamond tails, facesampling bit or other type, whether core is oriented and if so, by what method, etc). | Diamond Core Sampling: The collars of the diamond holes were drilled using RC drilling down through the regolith to the point of refusal or to a level considered geologically significant to change to core. The hole was then continued using HQ diamond core until the drillers determined that a change to NQ2 coring was required. PQ diameter core was used for Metallurgical sampling.   |
|                          |  | The core is oriented and marked by the drillers. The core is oriented using ACT Mk II electric core orientation.  |
|                          |  | RC Sampling: The RC drilling uses a 140 mm diametre face hammer tool. High capacity air compressors on the drill rig are used to ensure a continuously sealed and high pressure system during drilling to maximise the recovery of the drill cuttings, and to ensure chips remain dry to the maximum extent possible.   |
| Drill sample<br>recovery | Method of recording and assessing core and chip sample recoveries and results assessed.  | Diamond Core Sampling: Diamond core recoveries are recorded during drilling and reconciled during the core processing and geological logging. The core length recovered is measured for each run and recorded which is used to calculate core recovery as a percentage.   |
|                          |  | RC Sampling: RC samples are visually checked for recovery, moisture and contamination. Geological logging is completed at site with representative RC chips stored in chip trays.   |
|                          | Measures taken to maximise sample recovery and ensure representative nature of the samples.  | RC Sampling: Samples are collected using cone or riffle splitter. Geological logging of RC chips is completed at site with representative chips being stored in drill chip trays.   |
|                          |  | Diamond Core Sampling: Measures taken to maximise core recovery include using appropriate core diameter and shorter barrel length through the weathered zone, which at Cathedrals and Investigators is mostly <20m and Stricklands <40m depth. Primary locations for core loss in fresh rock are on geological contacts and structural zones, and drill techniques are adjusted accordingly, and if possible these zones are predicted from the geological modelling. |

| Criteria  | JORC Code explanation   | Commentary   |
|---|---|--|
|   | Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.                                  | To date, no sample recovery issues have yet been identified that would impact on potential sample bias in the competent fresh rocks that host the mineralised sulphide intervals.  |
| Logging   | Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. | Geological logging is carried out on all drill holes with lithology, alteration, mineralisation, structure and veining recorded.   |
|   | Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.  | Logging of diamond core and RC samples records lithology, mineralogy, mineralisation, structures (core only), weathering, colour and other noticeable features. Core was photographed in both dry and wet form.  |
|   | The total length and percentage of the relevant intersections logged.   | All drill holes are geologically logged in full and detailed lithogeochemical information is collected by the field XRF unit. The data relating to the elements analysed is used to determine further information regarding the detailed rock composition.   |
| Sub-sampling<br>techniques and<br>sample<br>preparation | If core, whether cut or sawn and whether quarter, half or all core taken.   | Diamond Core Sampling: Diamond core was drilled with PQ, HQ and NQ2 size and sampled as complete half core to produce a bulk sample for analysis. Intervals selected varied from 0.3 – 1m (maximum) The HQ and NQ2 core is cut in half length ways just to the right of the orientation line where available using a diamond core saw. All samples are collected from the same side of the core where practicable. |
|   |   | Assay preparation procedures ensure the entire sample is pulverised to 75 microns before the sub-sample is taken. This removes the potential for the significant sub-sampling bias that can be introduced at this stage.   |
|   | If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.   | RC samples are collected in dry form. Samples are collected using cone or riffle splitter when available. Geological logging of RC chips is completed at site with representative chips being stored in drill chip trays.  |
|   | For all sample types, the nature, quality and appropriateness of the sample preparation technique.  | RC Sampling: The entire sample is pulverised to 75μm using LM5 pulverising mills. Samples are dried, crushed and pulverized to produce a homogenous representative sub-sample for analysis. A grind quality target of 90% passing 75μm is used.  |
|   | Quality control procedures adopted for all sub-<br>sampling stages to maximise representivity of<br>samples.  | Quality control procedures include submission of Certified Reference Materials (standards), duplicates and blanks with each sample batch. QAQC results are routinely reviewed to identify and resolve any issues.  |
|   |   | RC Sampling: Field QC procedures maximise representivity of RC samples and involve the use of certified reference material as assay standards, along with blanks, duplicates and barren washes.  |
|   |   | Diamond Core Sampling: Drill core is cut in half lengthways and the total half-core submitted as the sample. This meets industry standards where 50% of the total sample taken from the diamond core is submitted.   |
|   | Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.                          | Duplicate samples are selected during sampling. Samples comprise two quarter core samples for Diamond Core. Duplicate RC samples are captured using two separate sampling apertures on the splitter.   |

| Criteria  | JORC Code explanation   | Commentary   |
|---|---|--|
|   | Whether sample sizes are appropriate to the grain size of the material being sampled.   | The sample sizes are considered to be appropriate to correctly represent base metal sulphide mineralisation and associated geology based on: the style of mineralisation (massive and disseminated sulphides), the thickness and consistency of the intersections and the sampling methodology.  |
| Quality of<br>assay data and<br>laboratory<br>tests | The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.                                      | For RC sampling, a 30 gram sample will be fire assayed for gold, platinum and palladium. The detection range for gold is $1-2000$ ppbAu, and $0.5-2000$ ppb for platinum and palladium. This is believed to be an appropriate detection level for the levels of these elements within this specific mineral environment. However, should Au, Pt or Pd levels reported exceed these levels; an alternative assay method will be selected.   |
|   |   | All other metals will be analysed using an acid digest and an ICP finish. The sample is digested with nitric, hydrochloric, hydrofluoric and perchloric acids to effect as near to total solubility of the sample as possible. The solution containing samples of interest, including those that need further review, will then be presented to an ICP-OES for the further quantification of the selected elements.  |
|   |   | Diamond core samples are analysed for Au, Pt and Pd using a 40g lead collection fire assay; for Rh, Ru, Os, Ir using a 25g nickel sulphide collection fire assay; and for Ag, Al, As, Bi, Ca, Cd, Co, Cr, Fe, K, Li, Mg, Mn, Mo, Nb, Ni, P, Pb, S, Sb, Sn, Te, Ti, V, W, Zn using a four acid digest and ICP-AES or MS finish. The assay method and detection limits are appropriate for analysis of the elements required.  |
|   |   | It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous.   |
|   | For geophysical tools, spectrometres, handheld XRF instruments, etc, the parametres used in determining the analysis including instrument   | MT/AMT: The surveys were conducted using the Phoenix MTU system and Metronix ADU07e system. The sensors were recorded at 500m intervals with 100m infill over the Investigators Prospect.  |
|   | make and model, reading times, calibrations factors applied and their derivation, etc.  | XRF: A handheld XRF instrument (Olympus Innov-X Spectrum Analyser) is used to systematically analyse the drill core and RC sample piles onsite. One reading is taken per metre, however for any core samples with matrix or massive sulphide mineralisation then multiple samples are taken at set intervals per metre. The instruments are serviced and calibrated at least once a year. Field calibration of the XRF instrument using standards is periodically performed (usually daily). |
|   |   | The handheld XRF results are only used for preliminary assessment and reporting of element compositions, prior to the receipt of assay results from the certified laboratory.  |
|   |   |  |
|   | Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision | Laboratory QAQC involves the use of internal lab standards using certified reference material (CRMs), blanks and pulp duplicates as part of in-house procedures. The Company also submits a suite of CRMs, blanks and selects appropriate samples for duplicates.  |
|   | have been established.  | Sample preparation checks for fineness are performed by the laboratory to ensure the grind size of 90% passing 75 $\mu$ m is being attained.   |
|   |   |  |

| Criteria   | JORC Code explanation  | Commentary  |
|--|--|---|
| Verification of<br>sampling and<br>assaying                      | The verification of significant intersections by either independent or alternative company personnel.  | Significant intersections are verified by the Company's technical staff.  |
|  | The use of twinned holes.  | No twinned holes have been planned for the current drill programme.   |
|  | Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.   | Primary data is captured onto a laptop using acQuire software and includes geological logging, sample data and QA/QC information. This data, together with the assay data, is entered into the St George Mining central SQL database which is managed by external consultants.  |
|  | Discuss any adjustment to assay data.  | No adjustments or calibrations will be made to any primary assay data collected for the purpose of reporting assay grades and mineralised intervals. For the geological analysis, standards and recognised factors may be used to calculate the oxide form assayed elements, or to calculate volatile free mineral levels in rocks. |
| Location of<br>data points                                       | Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys),   | Drill holes have been located and pegged using a DGPS system with an expected accuracy of +/-5m for easting, northing and elevation.  |
|  | trenches, mine workings and other locations used in Mineral Resource estimation.   | Downhole surveys are conducted using a single shot camera approximately every 30m or downhole Gyro during drilling to record and monitor deviations of the hole from the planned dip and azimuth. Post-drilling downhole gyroscopic surveys will be conducted, which provide more accurate survey results.                          |
|  | Specification of the grid system used.   | The grid system used is GDA94, MGA Zone 51.   |
| -  | Quality and adequacy of topographic control.   | Elevation data has been acquired using DGPS surveying at individual collar locations and entered into the central database. A topographic surface has been created using this elevation data.   |
| Data spacing<br>and<br>distribution                              | Data spacing for reporting of Exploration<br>Results.  | The spacing and distribution of holes is not relevant to the drilling programs which are at the exploration stage rather than definition drilling.  |
|  |  | Metallurgical testing has been completed to a Scoping level [Class 5] on composited samples considered representative of the main model domains.  |
|  | Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. | The completed drilling at the Project is not sufficient to establish the degree of geological and grade continuity to support the definition of Mineral Resource and Reserves and the classifications applied under the 2012 JORC code.   |
|  | Whether sample compositing has been applied.   | No compositing has been applied to the exploration results.  Metallurgical compositing has been used.   |
|  |  |   |
| Orientation of<br>data in relation<br>to geological<br>structure | Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.   | The drill holes are drilled to intersect the modelled mineralised zones at a near perpendicular orientation (unless otherwise stated). However, the orientation of key structures may be locally variable and any relationship to mineralisation has yet to be identified.  |
|  | If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.                   | No orientation based sampling bias has been identified in the data to date.   |

| Criteria             | JORC Code explanation   | Commentary   |
|----------------------|---|--|
| Sample<br>security   | The measures taken to ensure sample security.                         | Chain of Custody is managed by the Company until samples pass to a duly certified assay laboratory for subsampling and assaying. The RC sample bags are stored on secure sites and delivered to the assay laboratory by the Company or a competent agent. When in transit, they are kept in locked premises. Transport logs have been set up to track the progress of samples. |
| Audits or<br>reviews | The results of any audits or reviews of sampling techniques and data. | Sampling techniques and procedures are regularly reviewed internally, as is data. To date, no external audits have been completed on the drilling programme.   |

# Section 2 Reporting of Exploration Results (Criteria listed in section 1 will also apply to this section where relevant)

| Criteria                                | JORC Code explanation   | Commentary   |
|---|---|--|
| Mineral<br>Tenement and<br>Land Status  | Type, name/reference number, location and ownership including agreements or material issues with third parties including joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.  | The Mt Alexander Project is comprised of five granted Exploration Licences (E29/638, E29/548, E29/954, E29/962 and E29/972). Tenement E29/638 is held in Joint Venture between St George (75% interest) and Western Areas (25% interest). E29/638 and E29/548 are also subject to a royalty in favour of a third party that is outlined in the ASX Release dated 17 December 2015 (as regards E29/638) and the ASX release dated 18 September 2015 (as regards E29/548). |
|   | The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.  | No environmentally sensitive sites have been identified on the tenements. A registered Heritage site known as Willsmore 1 (DAA identification 3087) straddles tenements E29/548 and E29/638. All five tenements are in good standing with no known impediments.  |
| Exploration<br>Done by Other<br>Parties | Acknowledgment and appraisal of exploration by other parties.   | Exploration on tenements E29/638 and E29/962 has been largely for komatiite-hosted nickel sulphides in the Mt Alexander Greenstone Belt. Exploration in the northern section of E29/638 (Cathedrals Belt) and also limited exploration on E29/548 has been for mafic/ultramafic intrusion related Ni-Cu-PGE sulphides. No historic exploration has been identified on E29/954 or E29/972.  |
|   |   | High grade nickel-copper-PGE sulphides were discovered at the Mt Alexander Project in 2008. Drilling was completed to test co-incident electromagnetic (EM) and magnetic anomalies associated with nickel-PGE enriched gossans in the northern section of current tenement E29/638. The drilling identified high grade nickel-copper mineralisation in granite-hosted ultramafic units and the discovery was named the Cathedrals Prospect.                              |
| Geology                                 | Deposit type, geological setting and style of mineralisation  | The Mt Alexander Project is at the northern end of a western bifurcation of the Mt Ida Greenstones. The greenstones are bound to the west by the Ida Fault, a significant Craton-scale structure that marks the boundary between the Kalgoorlie Terrane (and Eastern Goldfields Superterrane) to the east and the Youanmi Terrane to the west.   |
|   |   | The Mt Alexander Project is prospective for further high-grade komatiite-hosted nickel-copper-PGE mineralisation (both greenstone and granite hosted) and also precious metal mineralisation (i.e. orogenic gold) that is typified elsewhere in the Yilgarn Craton.  |
| Drill hole<br>information               | A summary of all information material to the understanding of the exploration results including tabulation of the following information for all Material drill holes:  • Easting and northing of the drill hole collar  • Elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar  • Dip and azimuth of the hole  • Down hole length and interception depth  • Hole length | Drill hole collar locations are shown in the maps and tables included in the body of the relevant ASX releases.  |

| Criteria  | JORC Code explanation  | Commentary  |
|---|--|---|
| Data<br>aggregation<br>methods  | In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high   | Reported assay intersections are length and density weighted. Significant intersections are determined using both qualitative (i.e. geological logging) and quantitative (i.e. lower cut-off) methods.  |
|   | grades) and cut-off grades are usually Material and should be stated.  | For massive sulphide intersections, the nominal lower cut-off is 2% for either nickel or copper. For disseminated, blebby and matrix sulphide intersections the nominal lower cut-off for nickel is 0.3%.   |
|   | Where aggregated intercepts incorporate short lengths of high-grade results and longer lengths   | Any high-grade sulphide intervals internal to broader zones of sulphide mineralisation are reported as included intervals.  |
|   | of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.   | Any disseminated, matrix, brecciated or stringer sulphides with (usually) >1% nickel or copper on contact with massive sulphide mineralisation are grouped with the massive sulphides for calculating significant intersections and the massive sulphide mineralisation is reported as an including intersection. |
|   | The assumptions used for any reporting of metal equivalent values should be clearly stated.  | No metal equivalent values are used for reporting exploration results.  |
| Relationship<br>between<br>mineralisation<br>widths and<br>intercept<br>lengths | These relationships are particularly important in the reporting of exploration results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect.  | Assay intersections are reported as down hole lengths. Drill holes are planned as perpendicular as possible to intersect the target EM plates and geological targets so downhole lengths are usually interpreted to be near true width.   |
| Diagrams  | Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plane view of drill hole collar locations and appropriate sectional views.  | A prospect location map, cross section and long section are shown in the body of relevant ASX Releases.   |
| Balanced<br>Reporting   | Where comprehensive reporting of all Exploration Results is not practical,   | Reports on recent exploration can be found in ASX Releases that are available on our website at <a href="https://www.stgm.com.au">www.stgm.com.au</a> :   |
|   | representative reporting of both low and high<br>grades and/or widths should be practiced to<br>avoid misleading reporting of Exploration<br>Results.  | The exploration results reported are representative of the mineralisation style with grades and/or widths reported in a consistent manner.  |
| Other<br>substantive<br>exploration<br>data                                     | Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observation; geophysical survey results; geochemical survey results; bulk samples — size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances. | All material or meaningful data collected has been reported.  |
| Further Work  | The nature and scale of planned further work<br>(e.g. tests for lateral extensions or depth<br>extensions or large – scale step – out  | A discussion of further exploration work underway is contained in the body of recent ASX Releases.  |
|   | drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.   | Further exploration will be planned based on ongoing drill results, geophysical surveys and geological assessment of prospectivity.   |