

29 March 2022

## EXPLORATION UPDATE – MT ALEXANDER HIGH-GRADE NICKEL-COPPER PROJECT

*New compelling targets identified, diamond drilling continues***HIGHLIGHTS****Large conceptual targets identified:**

- Comprehensive project-wide review has highlighted five large conceptual targets for nickel-copper-PGE mineralisation, most with minimal or no previous drilling
- These targets have favourable structural and geological settings for nickel-copper-PGE deposits and warrant prioritised follow-up exploration
- Compelling conceptual targets identified for drilling include:
  - **Ida Fault**: structurally complex area where the Cathedrals Belt is truncated by the craton-scale Ida Fault; the interpreted shallow westerly plunge to high-grade mineralisation towards the Ida Fault suggests the Ida Fault may be linked to mineralisation
  - **Radar and Fish Hook**: two large structural targets – Radar and Fish Hook – in the eastern extension of the Cathedrals Belt, with very limited follow-up drilling at Radar – MAD152 intersected 4.0m @ 3.0%Ni, 1.1% Cu, 2.2g/t PGE from 48m
  - **Granite/greenstone contact**: the interpreted contact and related structures between the Mt Alexander greenstone belt and the granites located directly north is considered prospective and has yet to be effectively explored

**Major expansion of seismic coverage:**

- Recent drilling has confirmed the trial seismic survey was effective in mapping the interpreted structures that host the mineralised intrusions at Mt Alexander
- Based on the success of the trial survey in identifying potential mineralised intrusions, an expanded seismic survey is planned to commence next month
- The additional seismic coverage will cover high-priority target areas and has the potential to provide an exploration breakthrough

**Growth of known high-grade deposits:**

- Infill and extensional drilling is continuing in areas of known high-grade nickel-copper-PGE mineralisation, including at the Investigators and Stricklands Deposits which remain open
- Strong downhole EM conductor (22,800 Siemens) identified at West End, near the western end of known mineralisation, suggests mineralisation is open towards the Ida Fault

Growth-focused Western Australian nickel company St George Mining Limited (ASX: **SGQ**) (“**St George**” or “**the Company**”) is pleased to provide an update on current activities and planned exploration programmes at its flagship high-grade nickel-copper-PGE Mt Alexander Project, located in the northern Yilgarn Craton.

The Company’s exploration strategy is two-fold: firstly, to expand areas of known high-grade massive sulphide mineralisation intersected near surface at Mt Alexander and, secondly, at the same time test several large conceptual targets that have potential to deliver a step change in the scale of the Mt Alexander Project.

Following a comprehensive review of all available technical data for St George’s extensive holdings at Mt Alexander, five conceptual target areas with minimal or no previous drilling have been identified for priority testing.

Work on these conceptual target areas is planned to commence on site early in the June quarter.

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

“Our systematic exploration continues to deliver encouraging results that support the potential for further significant mineralisation at Mt Alexander.

“With surface EM surveys having limited detection at depth, the seismic survey has been invaluable in mapping the host structures and revealing prospective areas for exploration. Further seismic surveys will assist with 3D structural interpretation and provide datasets needed to make more discoveries.

“The geological and structural interpretations continue to evolve with new exploration results. Our very experienced and committed technical team is also looking at new concepts and methods to provide additional information that can assist exploration targeting.

“With investor interest in quality nickel exploration opportunities continuing to grow enormously, we are energised by these new exploration initiatives which could help to add to the four shallow high-grade nickel-copper discoveries we have already made across the Cathedrals Belt.

“We are also looking forward to the initial diamond drilling programme at the Paterson Project, in the eastern Pilbara region of WA, that will commence soon.

“This programme will test a number of compelling drill targets for potential copper and gold mineralisation and deliver some exciting newsflow to complement our activities at Mt Alexander.

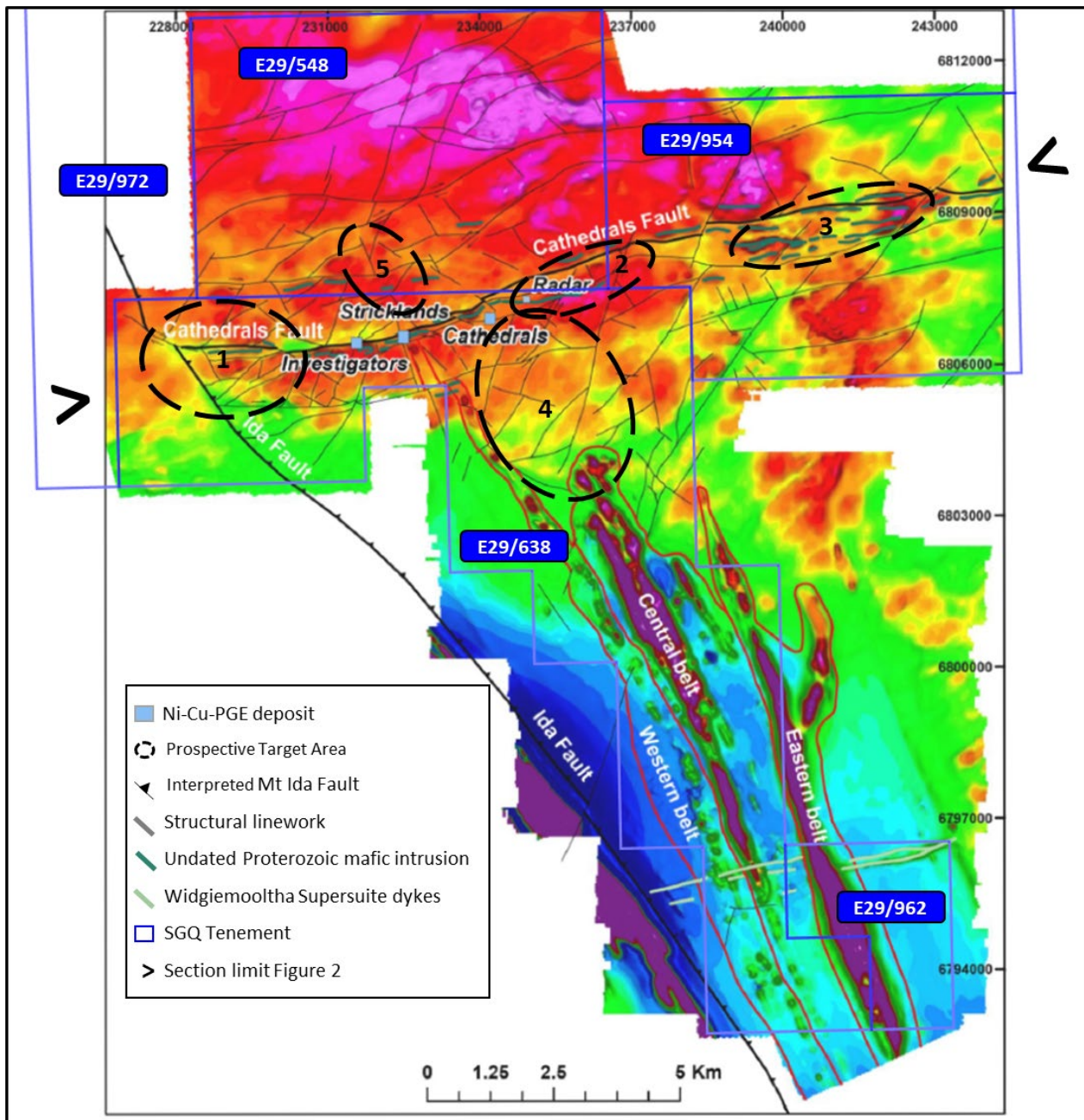
“With advanced exploration underway around the known high-grade deposits at the Cathedrals Belt and recognition of five large, conceptual targets at Mt Alexander – plus the commencement of diamond drilling at Paterson – this year is shaping as very productive for the Company and a very exciting time for St George shareholders.”

## **MT ALEXANDER - GEOLOGICAL AND STRUCTURAL SETTING OF Ni-Cu-PGE MINERALISATION**

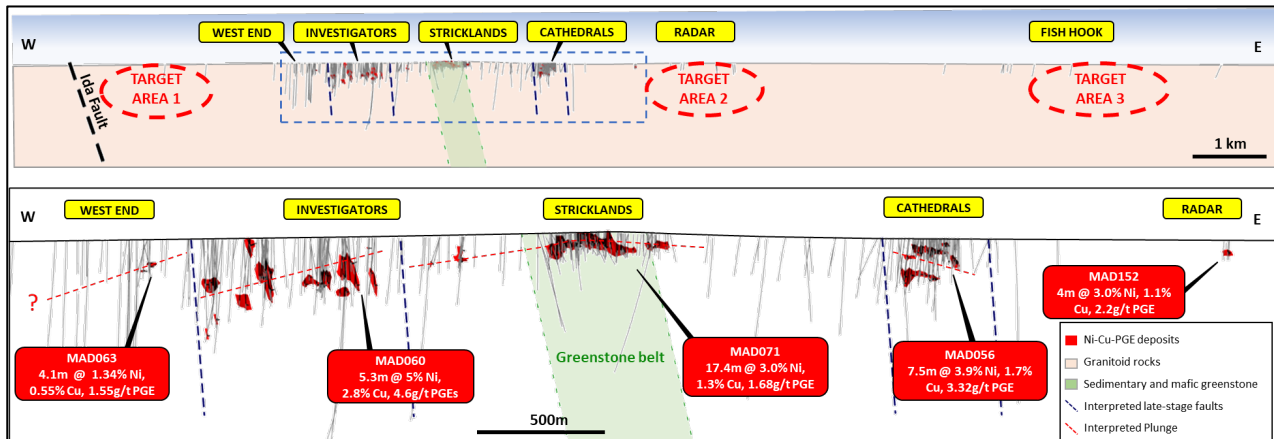
The high-grade Ni-Cu-PGE mineralisation at Mt Alexander is structurally controlled, making an understanding of the structural setting critical to exploration targeting. The latest seismic data and drill results have provided important information on the structural setting of the Mt Alexander Project.

The main interpreted geological and structural elements at Mt Alexander are as follows and illustrated in Figures 1 and 2 below:

- 15km-long, east-northeast oriented Cathedrals Belt with mafic intrusions hosting Ni-Cu-PGE sulphides over a strike of more than 5km
- Mt Alexander greenstone belt trending north-south that hosts wide mafic-ultramafic sequences south of the Cathedrals Belt
- Extensive area of granite intrusion, north of the greenstone belt and east of the Ida Fault
- Near surface, high-grade deposits dipping north and interpreted to plunge to west and east (Fig 2)
- Multiple structures parallel to Cathedrals Fault within ~5km-wide belt north of greenstone belt
- Ida Fault is a major craton-scale domain boundary, which may be linked to the mafic intrusions



**Figure 1:** Mt Alexander Project: Highlighting conceptual target areas (black ellipses) over reduced to pole aeromagnetic image with interpreted structures and mafic dykes or sills, and the interpreted position of the Ida Fault (Base image provided by CSIRO as part of the Mt Alexander co-funded research project).



**Figure 2: Top:** Cathedrals Belt schematic long projection at approximately 6806800N extending 15km east-west showing extent of current drilling and three conceptual targets. **Bottom:** Zoomed in view of long projection showing interpreted shallow plunge of high-grade mineralisation towards the west.

### LARGE CONCEPTUAL TARGETS IDENTIFIED

A comprehensive review of all available geological, geophysical and structural data at Mt Alexander has identified five large conceptual target areas where there has been minimal or no prior drilling. All five targets are located in underexplored areas of the Mt Alexander Project.

The five target areas (numbered 1-5) are briefly summarised below with locations shown on Figure 1. Three of the target areas (numbers 1, 2 and 3) are also shown on the long section (Figure 2).

#### 1 Ida Fault

- Intersection of the Ida Fault and the Cathedrals Belt
- Ida Fault represents a well-documented, major intra-cratonic domain boundary
- Comprises a wedge of structural complexity >2km west of previous drilling with no effective electromagnetic (EM) survey of the area
- Ida Fault may be a potential conduit to mafic intrusions along Cathedrals Belt

#### 2 Radar Prospect

- 2 to 3km long interpreted structural anomaly with interpreted basal intrusive, 1.5km east of Cathedrals Deposit along the Cathedrals Belt
- Previous shallow intersection in MAD152 with **4m @ 3.0% Ni, 1.1% Cu and 2.2g/t PGE** from **48m**; drilling planned to follow up as soon as possible
- Minimal drilling and no effective surface EM coverage over northern portion of Radar target

#### 3 Fish Hook Prospect

- >4km long, 1km wide structural zone with multiple intrusive units interpreted from magnetic data; located 5km east of high-grade Cathedrals Deposit along Cathedrals Belt
- Fish Hook is the largest section of Cathedrals Belt with minimal drilling to shallow depth only

#### 4 Granite/Greenstone Contact

- Extensive area of granite/greenstone contact, north of outcropping central greenstone belt
- Comprises interpreted stoped-out and structurally disrupted granite/greenstone contact
- Favourable structures and possible mafic intrusions along the contact are considered to be priority targets for mineralisation
- No prior effective drilling to test the granite/greenstone contact



## 5 Bullseye Anomaly

- Untested gravity and magnetic anomaly 1km north of Stricklands Deposit
- Similar geological setting to Stricklands Deposit within a prospective east-west structure
- Walk-up drill target

Drilling will be accelerated to test these targets. Geophysical surveys including gravity and seismic surveys are also planned to further investigate these new conceptual targets.

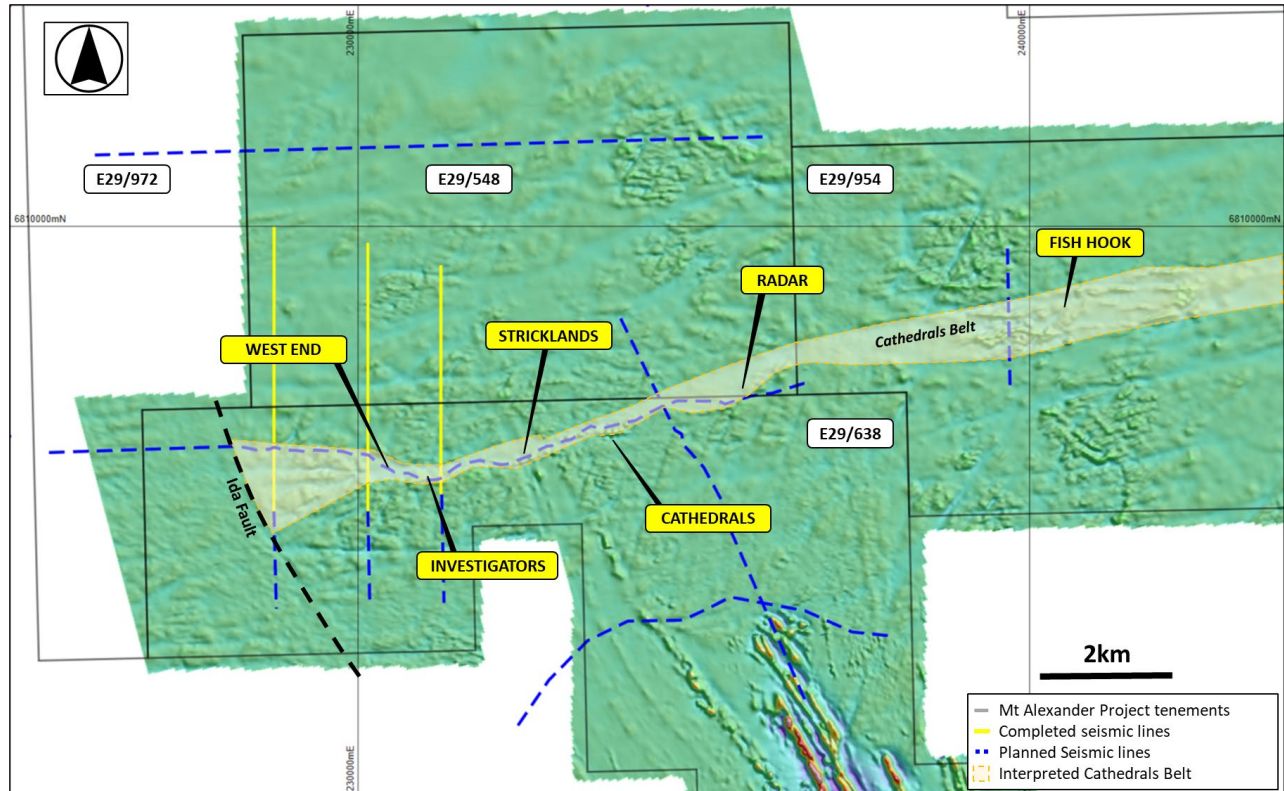
## EXPANSION OF SEISMIC PROGRAMME

The trial seismic survey completed in September 2021 comprised three north-south 2D seismic lines that covered an east-west strike of ~3km in the West End/Investigators area of the Cathedrals Belt. The trial survey did not cover the Stricklands and Cathedrals Deposits where shallow high-grade massive nickel-copper sulphides have been discovered with mineralisation open at depth.

Interpretation of the trial seismic data with results from drilling the S1, S2 and S3 targets confirmed that seismic had successfully mapped the prospective structures that host the mineralised intrusions at the Project.

Following the success of the trial seismic survey, a further substantial seismic survey will be undertaken to investigate the conceptual targets outlined in this release and assist in generating a 3D model of the Cathedrals Belt and other structures. Approximately eight seismic lines are planned, starting early in the June quarter.

Depending on results, this survey could be expanded further to delineate favourable structures and contacts where massive sulphide mineralisation might have accumulated.



**Figure 3 – Plan view of interpreted Cathedrals Belt (against magnetic RTP 1VD) showing the trial seismic lines (yellow), and planned extensional seismic lines (blue).**

## INFILL AND EXTENSIONAL DRILLING

**West End continues to deliver:** Diamond hole MAD205 was drilled at the western end of currently known deposits along the Cathedrals Belt in late 2021 to target a large 250m-strike length, off-hole conductor identified from a DHEM survey in hole MAD200. MAD205 intersected prospective mafic intrusive rocks between 556.9m to 571.77m downhole depth.

The DHEM survey in MAD205 identified another strong off-hole conductor at approximately 600m downhole depth, which aligns with the interpreted base of the intrusive unit. The EM anomaly is modelled with conductivity of 22,800 Siemens, consistent with a massive sulphide signature, and will be prioritised for drill testing.

The increasing number of EM conductors identified in the western part of the Cathedrals Belt indicates a very active part of the mineral system with potential for significant mineralisation in or proximal to this area.

**Stricklands growth targets:** At the Stricklands Deposit, two strong EM conductors – one modelled with conductivity of 22,500 Siemens and the other with 9,825 Siemens have been identified north-west of the main Stricklands Deposit. The conductors are interpreted to represent massive nickel-copper sulphides and drilling is planned to test these targets during the current programme.

For further details of these targets, see our ASX Release dated 15 February 2022 *Drilling and Development Update – Mt Alexander*.

## CURRENT DRILL PROGRAMME AT MT ALEXANDER

**Target S2:** MAD207, to test seismic target S2, was completed to a downhole depth of 653.3m. This is the deepest hole drilled in the Transits Belt, approximately 1,200m north of the Cathedrals Belt structure.

MAD207 intersected the fault structure as modelled by the seismic data, confirming the accuracy of seismic in mapping the structural network.

The drill hole intersected mainly granitic rocks with a zone of pervasive potassic alteration and epidote alteration centred around 550m downhole, the depth at which the target was expected to be intersected. This kind of alteration is typically an indicator of a nearby intrusive unit. No sulphide mineralisation was observed in the hole.

**Target S3:** MAD208, to test seismic target S3, was completed to a downhole depth of 653.3m.

S3 is located within an unexplored, south-dipping structure that intersects the north-dipping Cathedrals Belt structure at depth. MAD208 successfully intersected this south-dipping structure from 339m downhole depth with strong potassic alteration and brittle fracturing confirming the occurrence of the interpreted fault.

A DHEM survey has been completed in MAD207 and MAD208. MAD207 results confirm the structural interpretations of the seismic survey showing low level conductive response consistent with geological features. The results of MAD208 are still pending.

The drilling of seismic targets S4 and S5 has been deferred pending completion of further seismic lines.

**Stricklands extension drilling:** The diamond rig has now commenced drilling of a strong EM conductor (22,500 Siemens) at Stricklands.

This target is part of the infill and extensional drilling strategy for the shallow deposits in the Cathedrals Belt, which is designed to increase the volume of mineralisation for a potential mining inventory.

A further announcement on the infill and extensional programme will be made in the coming days.

Hole ID	Tenement	East	North	RL	EOH Depth	Target Depth	DIP	AZI	Target
MAD206	E29/548	231238	6808009	414	1,003.9	850	-70	167	S1
MAD207	E29/548	230150	6808081	408	653.3	550	-65	173	S2
MAD208	E29/638	231238	6806942	421	647.1	320	-70	350	S3
MAD209	E29/638	232297	6806600	440	150	120	-65	106	EM- 10k S
MAD210	E29/638	232297	6806600	440	140	110	-65	135	EM- 22k S

*Table 1 – drill hole details for holes in the current diamond drill programme.*



**Figure 4:** Drill rig in action at the Mt Alexander project.



## **COVID-19:**

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

The pandemic has restricted access to personnel for drill rig crews, which is 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 south-west 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 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.

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## **Competent Person Statement:**

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

Mr Mahon 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 Mahon 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
<b>Sampling techniques</b>	<p><i>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry 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.</i></p>	<p><i>Diamond Core Sampling:</i> 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 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.</p> <p><i>RC Sampling:</i> All samples from the RC drilling are taken as 1m samples for laboratory assay. 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.</p> <p><i>DHEM Surveying:</i> The surveys were conducted using the DigiAtlantis system and VTX-100 transmitter. The readings were recorded at 5m intervals with 1m infill down hole. The surveys used 400 x 400m loops orientated to magnetic north.</p> <p><i>Gravity Surveying:</i> A ground gravity survey was completed by Atlas Geophysics. The following primary instrumentation was used for acquisition of the data;</p> <ul style="list-style-type: none"> <li>- Scintrex CG-5 Autograv Gravity Meter (accuracy &lt;0.02 mGal)</li> <li>- CHC Nav i70+ GNSS Rover Receiver</li> <li>- CHC Nav i70+ GNSS Base Receiver</li> <li>- Garmin GPS receivers for navigation</li> </ul> <p>Gravity surveys are used to detect density contrasts which may be related to the underlying lithology and rock types, alteration of minerals or mineralisation.</p> <p>Seismic: The surveys were conducted by Apex Geo Pty Ltd independent contractors using the Aram Aries 1 instrument with an accelerated weight drop and picked up by the sercel SM-24 Geophone sensors.</p>
	<p><i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></p>	<p><i>RC Sampling:</i> 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.</p> <p>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.</p> <p><i>Diamond Core Sampling:</i> 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</p>

Criteria	JORC Code explanation	Commentary
	<p><i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></p> <p><i>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other 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.</i></p>	<p>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.</p> <p><i>RC Sampling:</i> 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.</p> <p><i>Diamond Core Sampling:</i> 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 75µm. 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.</p> <p>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.</p> <p>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.</p> <p>LOI (Loss on Ignition) will be completed on selected samples to determine the percentage of volatiles released during heating of samples to 1000°C.</p>
<p><b>Drilling techniques</b></p>	<p><i>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</i></p>	<p><i>Diamond Core Sampling:</i> 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.</p> <p>The core is oriented and marked by the drillers. The core is oriented using ACT Mk II electric core orientation.</p> <p><i>RC Sampling:</i> The RC drilling uses a 140 mm diameter 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.</p>
<p><b>Drill sample recovery</b></p>	<p><i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></p> <p><i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></p>	<p><i>Diamond Core Sampling:</i> 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.</p> <p><i>RC Sampling:</i> RC samples are visually checked for recovery, moisture and contamination. Geological logging is completed at site with representative RC chips stored in chip trays.</p> <p><i>RC Sampling:</i> 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.</p> <p><i>Diamond Core Sampling:</i> 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 &lt;20m and Stricklands &lt;40m depth. Primary locations for core loss in fresh rock are on geological contacts and structural zones, and</p>

Criteria	JORC Code explanation	Commentary
		drill techniques are adjusted accordingly, and if possible, these zones are predicted from the geological modelling.
	<i>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.</i>	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.
<b>Logging</b>	<i>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.</i>	Geological logging is carried out on all drill holes with lithology, alteration, mineralisation, structure and veining recorded.
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i>	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.
	<i>The total length and percentage of the relevant intersections logged.</i>	All drill holes are geologically logged in full and detailed litho-geochemical 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.
<b>Sub-sampling techniques and sample preparation</b>	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	<b>Diamond Core Sampling:</b> Diamond core was drilled with 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.
	<i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i>	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.
	<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	<b>RC Sampling:</b> Sample preparation for RC chips follows a standard protocol.  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.
	<i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>	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.  <b>RC Sampling:</b> 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.  <b>Diamond Core Sampling:</b> 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.

Criteria	JORC Code explanation	Commentary
	<p><i>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.</i></p>	<p>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.</p>
	<p><i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></p>	<p>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.</p>
<p><b>Quality of assay data and laboratory tests</b></p>	<p><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></p>	<p>A 25-50gram sample will be fire assayed for gold, platinum and palladium, using a minimum detection value of 1ppb for gold is 1ppb and 0.5ppb for platinum and palladium.</p> <p>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.</p> <p>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.</p>
	<p><i>For geophysical tools, spectrometres, handheld XRF instruments, etc, the parametres used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i></p>	<p><b>DHEM:</b> The surveys were conducted using the DigiAtlantis system and VTX-100 transmitter. The readings were recorded at 5m intervals with 1m infill down hole. The transmitter produced 96amps and recorded at a frequency of 0.5Hz.</p> <p><b>XRF:</b> 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).</p> <p>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.</p> <p><b>Gravity:</b> A Scintrex CG-5 Autograv Gravity Meter was used for data acquisition which has an accuracy of &lt;0.02 mGal</p> <p>Elevation information was captured using CHC Nav i70+ GNSS receivers with an accuracy of &lt;2m.</p>
	<p><i>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 have been established.</i></p>	<p>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.</p> <p>Sample preparation checks for fineness are performed by the laboratory to ensure the grind size of 90% passing 75µm is being attained.</p>
<p><b>Verification of sampling and assaying</b></p>	<p><i>The verification of significant intersections by either independent or alternative company personnel.</i></p>	<p>Significant intersections are verified by the Company's technical staff.</p>



Criteria	JORC Code explanation	Commentary
	<i>The use of twinned holes.</i>	No twinned holes have been planned for the current drill programme.
	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	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.
	<i>Discuss any adjustment to assay data.</i>	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.
<b>Location of data points</b>	<i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i>	<p>Drill holes and MT/AMT stations have been located and pegged using a DGPS system with an expected accuracy of +/-5m for easting, northing and elevation.</p> <p>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.</p> <p>The Gravity data was positioned using CHCi70+ DGPS receivers operating in kinematic mode.</p> <p>Seismic survey: all stations were located using NAVCOM DGPS survey equipment. Vibration source points readings were taken every 10m along the lines, with receiver nodes at 5m spacing along the lines for 1,944 data collection points and a total of 12 lineal km were traversed to collect the 2D Seismic data set</p>
	<i>Specification of the grid system used.</i>	The grid system used is GDA94, MGA Zone 51.
	<i>Quality and adequacy of topographic control.</i>	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.
<b>Data spacing and distribution</b>	<i>Data spacing for reporting of Exploration Results.</i>	<p>The spacing and distribution of holes is not relevant to the drilling programs which are at the exploration stage rather than definition drilling.</p> <p>The gravity data was collected at 25m station spacings.</p>
	<i>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.</i>	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.
	<i>Whether sample compositing has been applied.</i>	No compositing has been applied to the exploration results.
<b>Orientation of data in relation to geological structure</b>	<i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i>	<p>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.</p> <p>Seismic: Three north-south oriented lines approximately perpendicular to the strike of known host structures of the Cathedrals belt were completed. Lines were spaced an average of 1.2km apart. The length of lines were designed to allow imaging of deep structures to approximately 1.5km depths.</p>

Criteria	JORC Code explanation	Commentary
	<i>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.</i>	No orientation based sampling bias has been identified in the data to date.
<b>Sample security</b>	<i>The measures taken to ensure sample security.</i>	Chain of Custody is managed by the Company until samples pass to a 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.
<b>Audits or reviews</b>	<i>The results of any audits or reviews of sampling techniques and data.</i>	Sampling techniques and procedures are regularly reviewed internally, as is data. To date, no external audits have been completed on the drilling programme.  Results of the Seismic dataset was processed and queried by Dayborageo Geophysical Pty Ltd. Interpretations were completed by Rock Solid Seismic Pty Ltd with assistance from SGQ geologists. Both are independent contractors engaged by St George Mining.

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

Criteria	JORC Code explanation	Commentary
<b>Mineral Tenement and Land Status</b>	<i>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.</i>  <i>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.</i>	The Mt Alexander Project is comprised of six granted Exploration Licences (E29/638, E29/548, E29/954, E29/962, E29/972 and E29/1041). 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).  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.
<b>Exploration Done by Other Parties</b>	<i>Acknowledgment and appraisal of exploration by other parties.</i>	Exploration on tenements E29/638 and E29/962 has been largely focused on the discovery of komatiite-hosted nickel sulphides within 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.  Mafic-Ultramafic intrusion related 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 and East-West orientated ultramafic units and the discovery was named the Cathedrals Prospect.
<b>Geology</b>	<i>Deposit type, geological setting and style of mineralisation</i>	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 interpreted 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 nickel-mineralisation (both komatiite and mafic-ultramafic intrusive hosted) and also precious metal mineralisation (i.e. orogenic gold) that is

Criteria	JORC Code explanation	Commentary
		typified elsewhere in the Yilgarn Craton.
<b>Drill hole information</b>	<p>A summary of all information material to the understanding of the exploration results including tabulation of the following information for all Material drill holes:</p> <ul style="list-style-type: none"> <li>• Easting and northing of the drill hole collar</li> <li>• Elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>• Dip and azimuth of the hole</li> <li>• Down hole length and interception depth</li> <li>• Hole length</li> </ul>	Drill hole collar locations are shown in the maps and tables included in the body of the relevant ASX releases.
<b>Data aggregation methods</b>	<p>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</p>	<p>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.</p> <p>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%.</p>
	<p>Where aggregated intercepts incorporate short lengths of high grade results and longer lengths 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.</p>	<p>Any high-grade sulphide intervals internal to broader zones of sulphide mineralisation are reported as included intervals.</p> <p>Any disseminated, matrix, brecciated or stringer sulphides with (usually) &gt;1% nickel or copper on contact with massive sulphide mineralisation are grouped with the massive sulphides for calculating significant intersections.</p>
	<p>The assumptions used for any reporting of metal equivalent values should be clearly stated.</p>	<p>No metal equivalent values are used for reporting exploration results.</p>
<b>Relationship between mineralisation widths and intercept lengths</b>	<p>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.</p>	<p>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.</p>
<b>iagrams</b>	<p>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.</p>	<p>A prospect location map, cross section and long section are shown in the body of relevant ASX Releases.</p>
<b>Balanced Reporting</b>	<p>Where comprehensive reporting of all Exploration Results is not practical, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</p>	<p>Reports on recent exploration can be found in ASX Releases that are available on our website at <a href="http://www.stgm.com.au">www.stgm.com.au</a>:</p> <p>The exploration results reported are representative of the mineralisation style with grades and/or widths reported in a consistent manner.</p>
<b>Other substantive exploration data</b>	<p>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;</p>	<p>All material or meaningful data collected has been reported.</p>

Criteria	JORC Code explanation	Commentary
	<p><i>metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i></p>	
<p><b>Further Work</b></p>	<p><i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large – scale step – out 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.</i></p>	<p>A discussion of further exploration work underway is contained in the body of recent ASX Releases.</p> <p>Further exploration will be planned based on ongoing drill results, geophysical surveys and geological assessment of prospectivity.</p>