# **ASX / MEDIA RELEASE**



2 June 2017

#### DRILLING AT WINDSOR NICKEL SULPHIDE TARGET

#### **HIGHLIGHTS:**

- Diamond drill hole WINDD005 completed to test electromagnetic (EM) conductor at Windsor with very high conductivity of 210,000 Siemens
- Downhole EM (DHEM) survey in WINDD005 identifies two strong off-hole EM anomalies for follow-up drilling
- Drilling of these off-hole DHEM conductors will commence today

#### ST GEORGE CONTINUES DRILLING AT WINDSOR

St George Mining Limited (ASX: **SGQ**) ('St George Mining' or 'the Company') is pleased to provide an update on drilling at the Windsor nickel sulphide target at its 100% owned East Laverton Project in Western Australia.

Diamond drill hole WINDD005 has been completed to a downhole depth of 150m to test the highly conductive DHEM plate (210,000 Siemens) modelled at 95m downhole.

WINDD005 intersected a thick ultramafic unit from 61m to 142m downhole but there was no material in the drill core that could explain the highly conductive EM target.

A DHEM survey has been completed in WINDD005 with two strong off-hole EM responses recorded – one at 62m downhole and the other at 100m downhole.

Newexco has modelled two DHEM plates for follow-up testing, and drilling of these targets will commence today.

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

"The DHEM survey data at Windsor suggests that there are a number of conductive sources in the target area and this adds complexity to the modelling of EM plates.

"Our exploration model still strongly favours the presence of massive nickel sulphide mineralisation at Windsor and we are pleased the new EM targets provide immediate follow-up drilling."

Figure 1 below is a plan view map of the new DHEM plates that will be drilled. The EM responses for these plates are seen in the late to very late-time channels and continue to record high conductivity readings.

Hole ID	East	North	Dip	Azimuth	Depth (m)
WINDD005	530558	6733725	-70	330	150
WINDD006	530531	6733753	-80	90	110
WINDD007	530576	6733734	-80	315	90

Table 1 – drill hole details for completed and planned holes at Windsor. WINDD005 is the only completed drill hole.

## **ASX / MEDIA RELEASE**



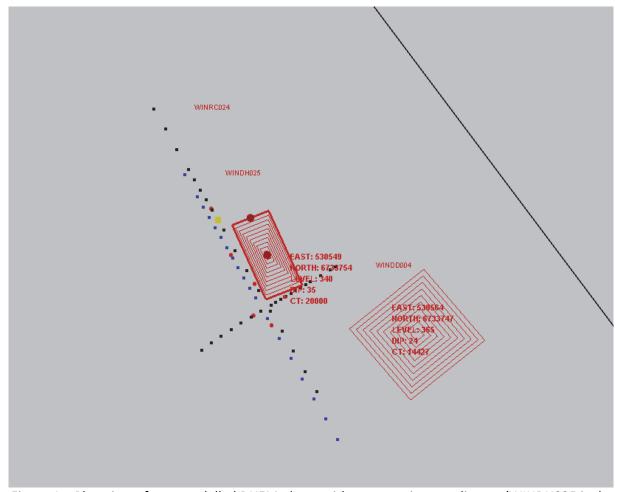


Figure 1 – Plan view of new modelled DHEM plates with centre point coordinates.(WINDH025 is the drill collar for WINDD005).

#### For further information, please contact:

#### **John Prineas**

Executive Chairman St George Mining Limited (+61) 411 421 253 John.prineas@stgm.com.au

#### **Competent Person Statement:**

The information in this report that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr Timothy Hronsky, a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Hronsky is employed by Essential Risk Solutions Ltd which has been retained by St George Mining Limited to provide technical advice on mineral projects.

Mr Hronsky 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 Hronsky 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 techniques	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.	This ASX Release dated 2 June 2017 reports on the 2017 nickel drill programme at the Company's East Laverton Project.
		The current drilling programme is being completed by reverse circulation (RC) drilling and diamond core drilling.
		Diamond Core Sampling: The core is removed from the drill rig and laid out for initial analysis in the field. The core is measured and marked up at 1m intervals against the drillers blocks, which are themselves checked against the drillers log books where required. The visible structural features on the core are measured against the core-orientation lines.
		RC Sampling: All samples from the RC drilling are taken as 1m samples. Samples are sent to Intertek Laboratories for assaying.
		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.
		Onsite XRF analysis is conducted on the fines from RC chips using a hand-held Olympus Innov-X Spectrum Analyser. These results are only used for onsite interpretation and preliminary assessment subject to final geochemical analysis by laboratory assays.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	RC Sampling: The RC drilling rig has a cone splitter built into the cyclone on the rig. Samples are taken on a one meter basis and collected directly from the splitter into uniquely numbered calico bags. The calico bag contains a representative sample from the drill return for that metre. This results in a representative sample being taken from drill return, for that metre of drilling. The remaining majority of the sample return for that metre is collected and stored in a green plastic bag marked with that specific metre interval. The cyclone is blown through 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 large auxiliary compressor ("air-pack") is mounted on a separate truck and the airstream is connected to the rig. This provides an addition to the compressed air supplied by the in-built compressors mounted on the drill rig itself. This auxiliary compressor maximises the sample return through restricting air pressure loss, especially in deeper holes. In addition, the high and consistent levels of air pressure minimise the number of drill 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 to detect deviations of the hole from the planned dip and azimuth. The drill-hole collar locations were recorded using a hand held GPS, which has an accuracy of +/- 5m. At a later date the drill-hole collar will be surveyed to a greater degree of accuracy.
		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 din and azimuth

and the driller's records. Downhole surveys of dip and azimuth were conducted using a single shot camera every 30m to detect

Criteria	JORC Code explanation	Commentary
		deviations of the hole from the planned dip and azimuth. The drill-hole collar locations were recorded using a hand held GPS, which has an accuracy of +/- 5m. At a later date the drill-hole collar will be surveyed to a greater degree of accuracy.
	Aspects of the determination of mineralisation that are Material to the Public Report.  In cases where 'industry standard' work has	RC Sampling: A 1m composite sample is taken from the bulk sample of RC chips that may weigh in excess of 40 kg. Assay preparation is for the current drilling program will be completed by Intertek.
	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	Diamond Core Sampling: Core is drilled with HQ and NQ2 size and sampled as half core to produce a bulk sample for analysis. Intervals vary from 0.3 – 1m maximum and are selected with an emphasis on geological control.
	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.	Assays are undertaken at Intertek in Kalgoorlie and Perth. Samples are sent to Intertek where they are crushed to 6 mm and then pulverised to 75 microns. A 30 g charge of the sample is 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 these elements within this specific mineral environment. However, should Au, Pt or Pd levels reported exceed these levels an additional assay method will be used to re-test samples.
		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.
Drilling techniques	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).	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.
		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 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.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	Diamond Core Sampling: Diamond core recoveries/core loss are recorded during drilling and reconciled during the core processing and geological logging. No significant sample recovery problems are thought to have occurred in any holes drilled to date. There has been a notable and consistent competency encountered in the rocks during drilling.
		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: Depths are checked against the depth on the core blocks and rod counts are routinely carried out by the drillers. Core loss was recorded by St George geologists and sampling intervals were not carried through core loss.

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 detailed analysis to determine the relationship between sample recovery and grade has been undertaken for any drill program. This analysis will be conducted following any economic discovery.
		The nature of magmatic sulphide distribution hosted by the competent and consistent rocks hosting any mineralised intervals are considered to significantly reduce any possible issue of sample bias due to material loss or gain.
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 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.
Sub-sampling techniques and sample reparation	If core, whether cut or sawn and whether quarter, half or all core taken.	Diamond Core Sampling: 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) with a strong geological control (as is possible in diamond core) to ensure grades are representative, i.e. remove any bias through projecting assay grades beyond appropriate geological boundaries.
		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	<i>RC Sampling</i> : Sample preparation for RC chips follows a standard protocol.
	technique.	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.
	Quality control procedures adopted for all sub- sampling stages to maximise representivity of samples.	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.	RC Sampling: Field duplicates were taken on 1m composites for RC samples.

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 the sulphide mineralisation at the East Laverton Property based on: the style of mineralisation (massive and disseminated sulphides), the thickness and consistency of the intersections and the sampling methodology.
Quality of assay data and laboratory 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.
	For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	A handheld XRF instrument (Olympus Innov-X Spectrum Analyser) is used to systematically analyse the drill core and RC chips onsite. Reading time was 60 seconds. The instruments are serviced and calibrated at least once a year. Field calibration of the XRF instrument using standards is undertaken each day.
	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.	Laboratory QAQC involves the use of internal lab standards using certified reference material, blanks, splits and replicates as part of in house procedures. The Company will also submit an independent suite of CRMs, blanks and field duplicates (see above).
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	Significant intersections are verified by the Company's Technical Director and Consulting Field Geologist.
	The use of twinned holes.	No twinned holes have been completed.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Geological data was collected using handwritten log sheets and imported in the field onto a laptop detailing geology (weathering, structure, alteration, mineralisation), sampling quality and intervals, sample numbers, QA/QC and survey data. This data, together with the assay data received from the laboratory and subsequent survey data was entered into the Company's database.
	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 data points	Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys),	Drill hole collar locations are determined using a handheld GPS with an accuracy of +/- 5m.
	trenches, mine workings and other locations used in Mineral Resource estimation.	Down hole 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 azimuths.
	Specification of the grid system used.	The grid system used is GDA94, MGA Zone 51.
	Quality and adequacy of topographic control.	Best estimated RLs were assigned during drilling and are to be corrected at a later stage.

Criteria	JORC Code explanation	Commentary
Data spacing and distribution	Data spacing for reporting of Exploration Results.	The spacing and distribution of holes is not relevant to the drilling programs which are at the exploration stage.
	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.	Drilling at the East Laverton Project is at the exploration stage and mineralisation has not yet demonstrated to be sufficient in both geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications to be applied.
	Whether sample compositing has been applied.	Samples are taken at one metre lengths and adjusted where necessary to reflect local variations in geology or where visible mineralised zones are encountered, in order to preserve the samples as representative.
Orientation of data in relation to geological 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 towards 060 at an angle of -60 degrees (unless otherwise stated) to intersect the modelled mineralised zones at a near perpendicular orientation. 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.
Sample 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. The chain of custody passes upon delivery of the samples to the assay laboratory.
Audits or 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 Tenement and 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 East Laverton Project comprises 27 exploration licences, and details are available in the Company's Quarterly Activities Report which can be found on our website at <a href="www.stgm.com.au">www.stgm.com.au</a> .
		Each tenement is 100% owned by Desert Fox Resources Pty Ltd, a wholly owned subsidiary of St George Mining. Certain tenements are subject to a 2% Net Smelter Royalty in favour of a third party.
	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.	An additional two exploration licences are owned directly by St George Mining Limited, and are referred to as the Lake Minigwal Project that hosts the Atlas gold target.
		None of the tenements are the subject of a native title claim. No environmentally sensitive sites have been identified at any of the tenements. The tenements are in good standing; no known impediments exist.
Exploration Done by Other Parties	Acknowledgment and appraisal of exploration by other parties.	Gold Exploration: Historical exploration drilling targeting gold was completed mainly by WMC Resources in the early 1990s. This drilling was relatively shallow, mostly less than 100m.
		The historical drilling along the Minigwal belt defined linear zones of anomalous gold and copper in the regolith that extend over 1,300m

Criteria	JORC Code explanation	Commentary
		and are open to the south towards the Ascalon target.
		The Bristol gold target is situated along the Central Belt within the East Laverton Project. Widespread anomalous gold (>0.5g/t Au) was encountered over a 1km strike length from shallow drilling in this area completed in the 1990s by previous exploration.
		The average hole-depth for the past drilling at Bristol was approximately 40m and identified anomalous gold in the lower regolith. Significantly, gold anomalism in seven of the eight drill holes occurs at the end of hole. The continuation of this gold mineralisation, or the presence of bedrock gold mineralisation, has never been tested.
		The gold anomalism is situated on the contact of the Bristol ultramafics/mafics with granites, as defined by a distinct magnetic and gravity gradient. This is a favourable setting for gold mineralisation.
		Savanna Mineral Resources Pty Ltd completed a number of shallow drill programmes across the Stella Range Belt during the 1990's including the series of drill holes designated SRAB001 to 176. Anomalous gold was identified in numerous drill holes, interpreted to be supergene gold. The presence of bedrock gold mineralisation at St George's gold targets has never been tested.
		Nickel Exploration: In 2012, BHP Billiton Nickel West Pty Ltd (Nickel West) completed a reconnaissance RC (reverse circulation) drilling programme at the East Laverton Property as part of the Project Dragon farm-in arrangement between Nickel West and the Company. That farm-in arrangement has been terminated. The drilling programme comprised 35 RC holes for 8,560m drilled.
		The results from the Nickel West drilling programme were reported by the Company in its ASX Release dated 25 October 2012 "Drill Results at Project Dragon". Drilling intersected primary nickel sulphide mineralisation and established the presence of fertile, high MgO ultramafic sequences at the East Laverton Property.
		Prior to the Project Dragon drilling programme, there was no systematic exploration for nickel sulphides at the East Laverton Property. Historical exploration in the region was dominated by shallow RAB and aircore drilling, much of which had been incompletely sampled, assayed, and logged. This early work was focused on gold rather than nickel sulphide exploration.
Geology	Deposit type, geological setting and style of mineralisation	The Company's East Laverton Property located in the NE corner of the Eastern Goldfields Province of the Archean Yilgarn Craton. Reconnaissance drilling has identified extensive greenstones at the Property, which is interpreted to be prospective for Orogenic gold mineralisation.
Drill hole 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 meters) of the drill hole collar  • Dip and azimuth of the hole  • Down hole length and interception depth  • Hole length	Refer to information in the body of this announcement.

Criteria	JORC Code explanation	Commentary
Data aggregation methods	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.	No top-cuts have been applied unless otherwise indicated.
	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.	High grade intervals internal to broader zones of mineralisation are reported as included intervals.
	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 between mineralisation widths and intercept 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.	The geometry of the mineralisation is not yet known due to insufficient deep drilling in the targeted area.
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.	Maps are included in the body of the ASX Release.
Balanced Reporting	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.	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> :  The exploration results reported are representative of the mineralisation style with grades and/or widths reported in a consistent manner.
Other substantive exploration 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 meaningful and material information has been included in the body of the text. No metallurgical or mineralogical assessments have been completed.
Further Work	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.	A discussion of further exploration work is contained in the body of the ASX Release.