



**ST GEORGE**  
MINING LIMITED

# *'Mt Alexander – Drilling Success Continues'*

27 November 2017  
121 Mining Conference, London



St George Mining Limited | ACN 139 308 973

# Overview of St George Mining

## High Quality Explorer



### ASX listed: SGQ

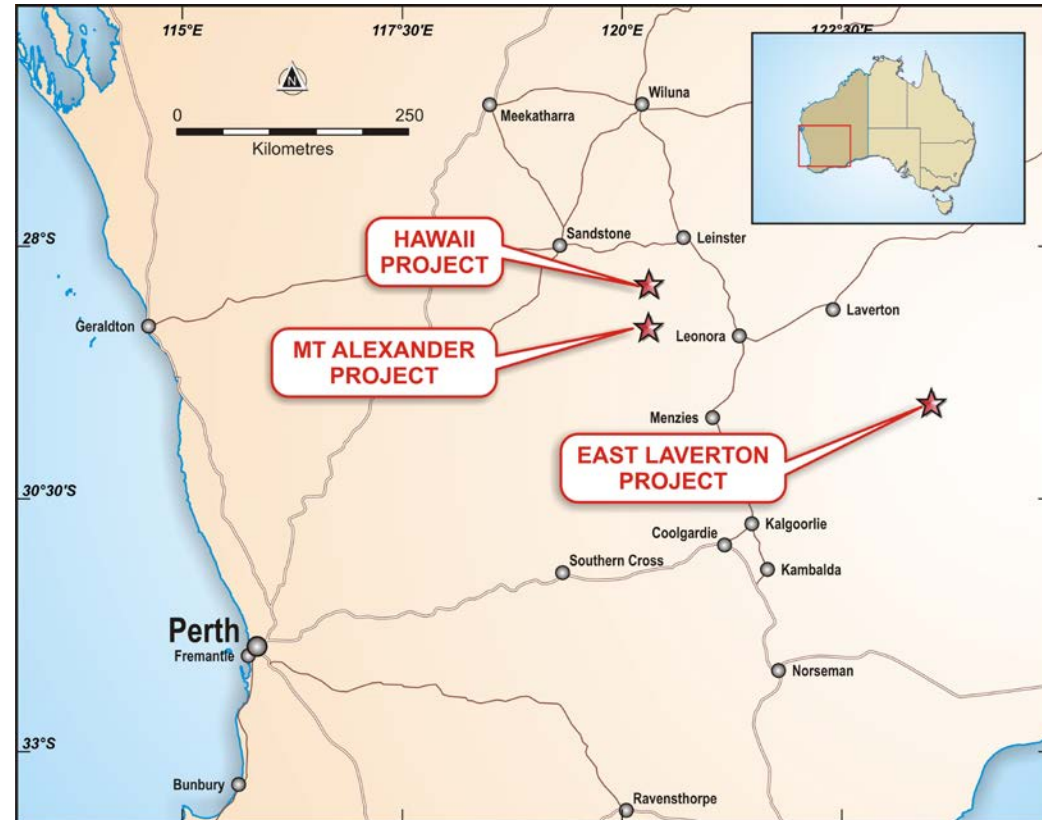
- *Based in Perth, Western Australia*

### Multiple Projects

- *Nickel sulphide and gold in mineral-rich Yilgarn Craton, Western Australia*
- *Projects with potential for discovery of world class deposits*

### Creating Shareholder Wealth

- *Targeting high multiplier returns on investment*
- *Strong capital discipline from directors with 'skin in the game'*



**East Laverton Project:** *High priority targets for gold and nickel sulphide over three major greenstone belts*

**Hawaii Project:** *Early stage exploration at recently recognised undercover and unexplored greenstones*



# Mt Alexander

## Favourable Location

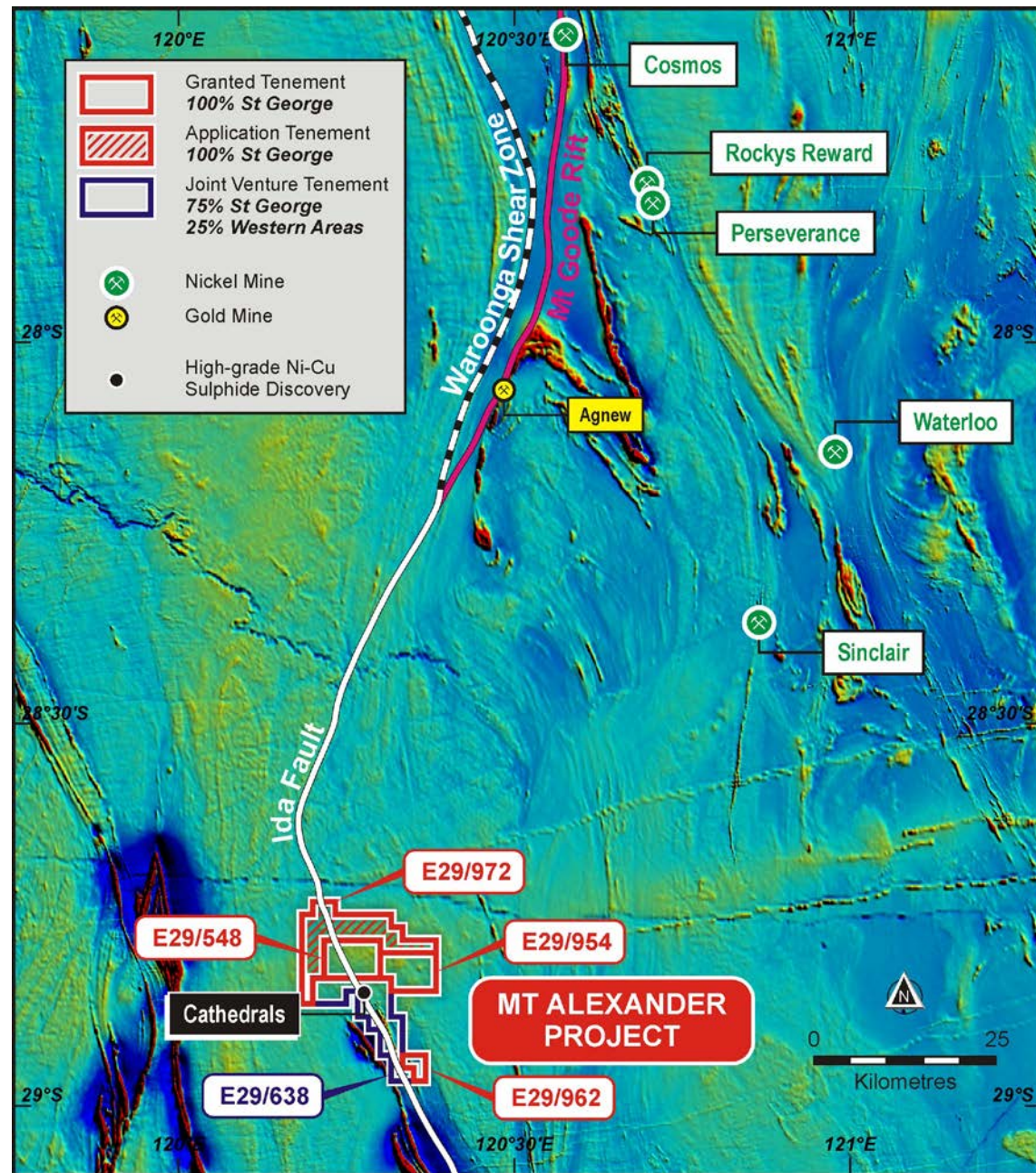
### Established Mining Region

- South-west of world class nickel and gold mines of the Agnew-Wiluna belt
- Access to existing roads, infrastructure and processing plants (Right: regional location map set over TMI magnetics)

### Underexplored Project

- Discovery of massive Ni-Cu sulphides by BHP in 2008
- Project remained under-explored until St George acquisition in December 2016

The Cathedrals, Stricklands and Investigators Prospects are located on E29/638, which is held in joint venture by Western Areas Limited (25%) and St George (75%). 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. St George has 100% of all other tenements at Mt Alexander.





# Cathedrals Belt

## Unique Geological Setting

### **East-NorthEast Belt:**

- Discovered nickel-copper sulphides where they were not supposed to be
- Typical mineralised belt is N-NW trend
- Gossans identified at surface provided the exploration breakthrough

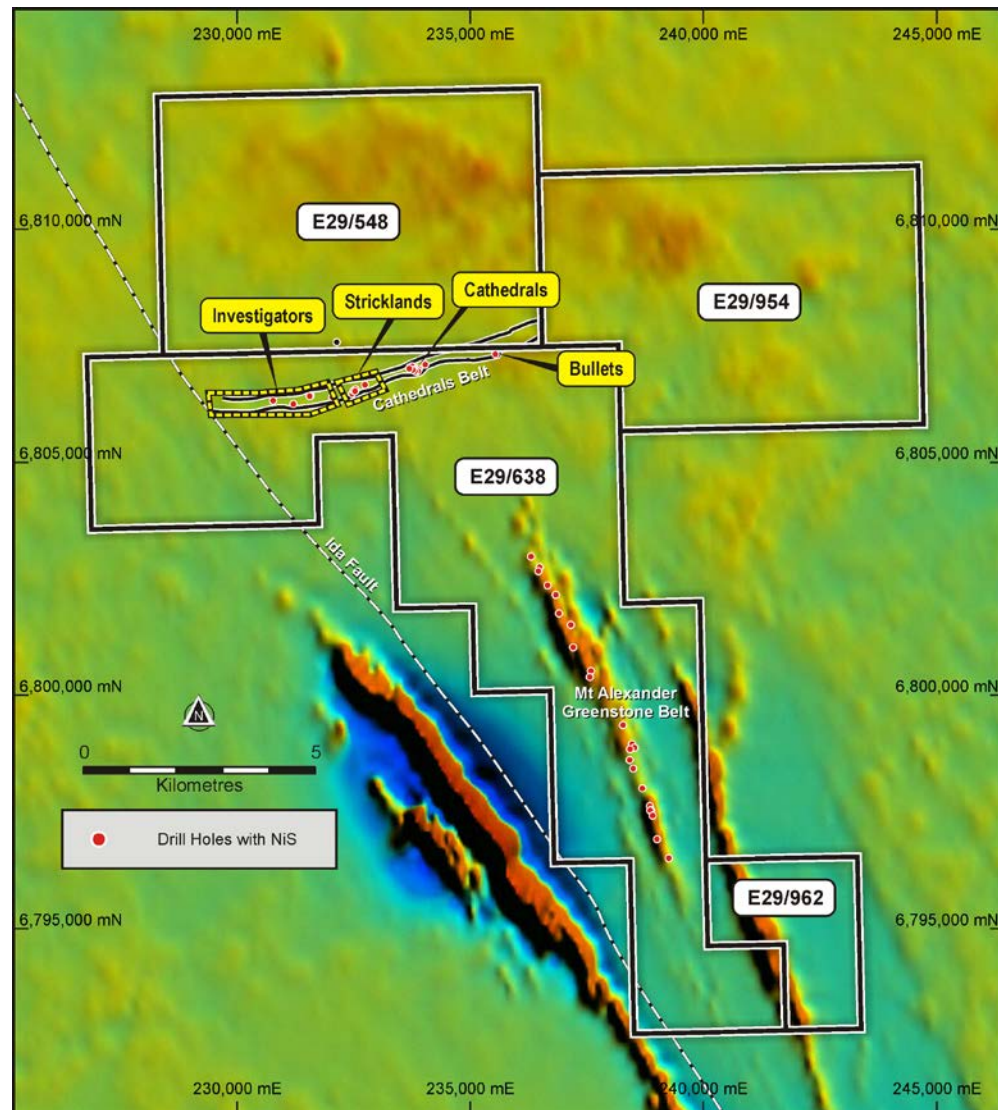
### **Granite Hosted:**

- Mineralised ultramafics in granites
- Granites have preserved the mineralised ultramafic; minimal weathering

### **Polymetallic:**

- Not just nickel sulphide
- High copper, cobalt and PGEs (*palladium and platinum*)

*Right: map of four granted project tenements (against TMI RTP magnetics) highlighting the unusual E-NE Cathedrals Belt*





# Drilling Success

## 3.5km Strike of Mineralisation at Cathedrals Belt

### 100% Strike Rate:

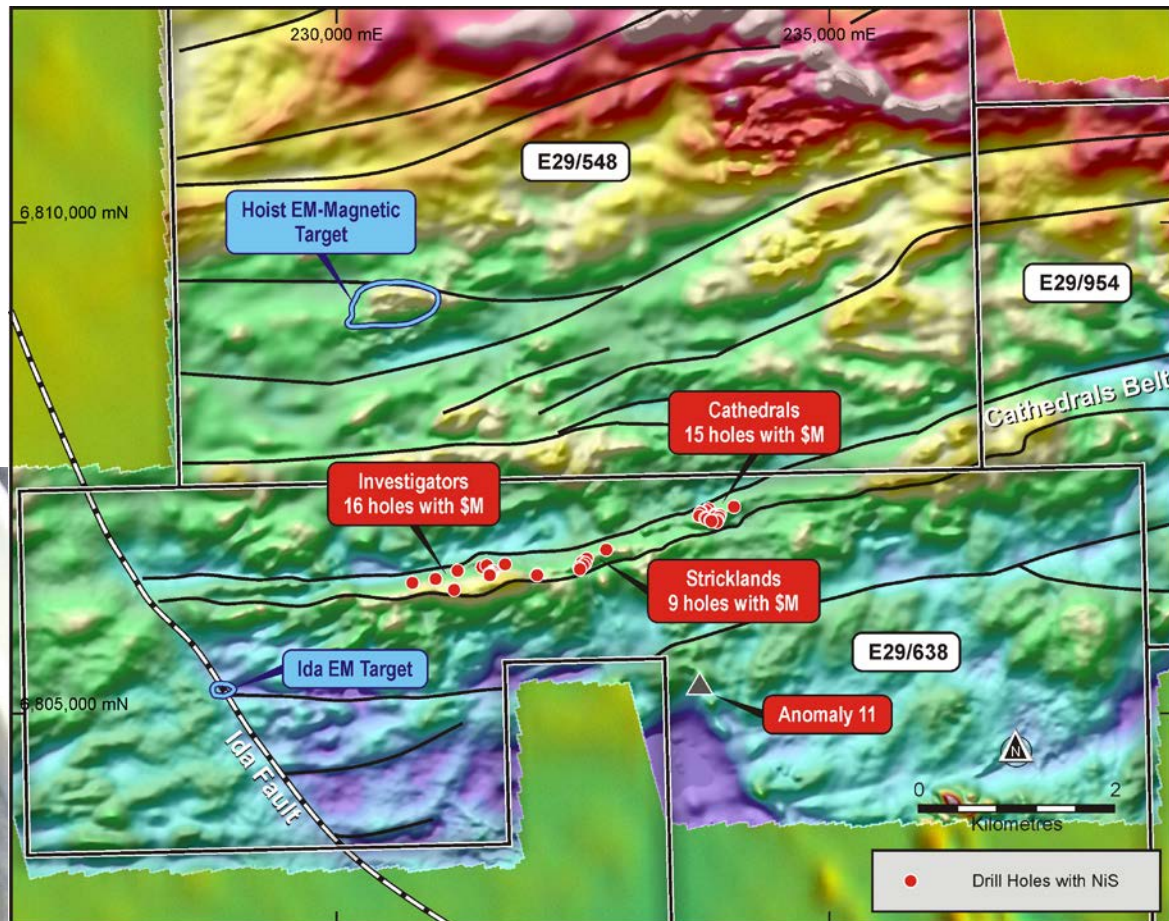
- Ni-Cu sulphides in every EM conductor drilled

### Shallow Depths:

- Mineralisation from 30m below surface

### Large Mineral System:

- Recurrent mineralisation over 3.5km strike on Cathedrals Belt



*Left:* drill core from MAD22 with massive chalcopyrite (yellow-green) in contact with ultramafic (dark grey). Assays for this interval (52.4-52.6m) are 13.1%Cu and 43g/tAg. *Above:* Cathedrals Belt (against high resolution TMI) showing the multiple intersections of massive nickel-copper-cobalt-PGE sulphides (“\$M”) over a strike length of 3.5km and new regional targets.

# Grade is King

## 2017 Drilling Delivers Best Intersections to Date

### MAD56 (Cathedrals Prospect):

7.5m @ 3.90%Ni, 1.74%Cu, 0.12%Co and 3.32g/t total PGEs from 57.8m including

3.15m @ 6.36%Ni, 2.92%Cu, 0.20%Co and 5.03g/t total PGEs from 61.81m

### MAD55 (Cathedrals Prospect):

4.28m @ 2.75%Ni, 1.21%Cu, 0.09%Co and 2.59g/t total PGEs from 60.67m including

1.05m @ 5.91%Ni, 2.63%Cu, 0.21%Co and 2.57g/t total PGEs from 63.9m

### MAD60 (Investigators Prospect):

5.3m @ 4.95%Ni, 2.75%Cu, 0.16%Co and 4.55g/t total PGEs from 157.9m including

3m @ 6.40%Ni, 3.55%Cu, 0.21%Co and 5.25g/t total PGEs from 159.38m

**and now MAD71 at the Stricklands Prospect – assays pending**

*(On right: Drill core from MAD56. The section of core is from an interval that returned assays of 3.15m @ 6.36%Ni, 2.92%Cu, 0.20%Co and 5.03g/t total PGEs from 61.81m*





# MAD71 at Stricklands Prospect

## Thick Intersection of Ni-Cu Sulphides

- 10.1 metres in total of massive nickel-copper sulphides
- XRF readings averaging 5.5%Ni and 2.1%Cu
- Within a broader 17 metre intersection of nickel-copper sulphides
- From just 37.5m downhole
- Announced 20 November 2017

***“With MAD71, confidence in the resource potential at Mt Alexander continues to build”***

*On right: massive sulphides in drill core from MAD71 at 52-53m which recorded spot XRF readings between 3 to 7%Ni and 1.2 to 4%Cu*



# Metallurgical Testwork

## Positive Results from Initial Test

### **High Recoveries from Ore:**

>99% recoveries of Ni and Cu to concentrates from preliminary testwork on massive sulphides

No deleterious elements like MgO or arsenic

*(on right: copper being floated in the metallurgical test completed by Strategic Metallurgy Pty Ltd)*

### **High Value Concentrate:**

Nickel concentrate with **18%Ni** (Nova is 13.5%Ni\*)

Copper concentrate with **32%Cu** (Nova is 29%Cu\*)

Cobalt grade of **0.55%Co** in nickel concentrate

**PGEs + Au of 13.5 g/t** in nickel concentrate

**PGEs + Au of 3.2 g/t** in copper concentrate

***Clean and high grade concentrate will attract a premium price***

*\* Nova Optimisation Study announced by IGO in ASX Release dated 14 December 2015*





# Favourable Project Economics

## Opportunity for a High Margin Mining Operation

Low Cost Mining	Low Development Capex	High Value Concentrate
✓ Shallow mineralisation	✓ Access to nearby plants	✓ High grade Ni and Cu plus cobalt and PGEs
✓ Well defined zones	✓ Existing infrastructure	✓ Excellent metallurgy



*Left: Tim King Pit at Spotted Quoll mine at Forresteria (owned 100% by Western Areas Limited) where high grade nickel sulphides were mined from 60m below surface*

# East Laverton Project

## Nickel and Gold Prospects

### ***Nickel Discovery:***

In 2012, BHP (under a concluded farm-in arrangement) discovered nickel sulphides

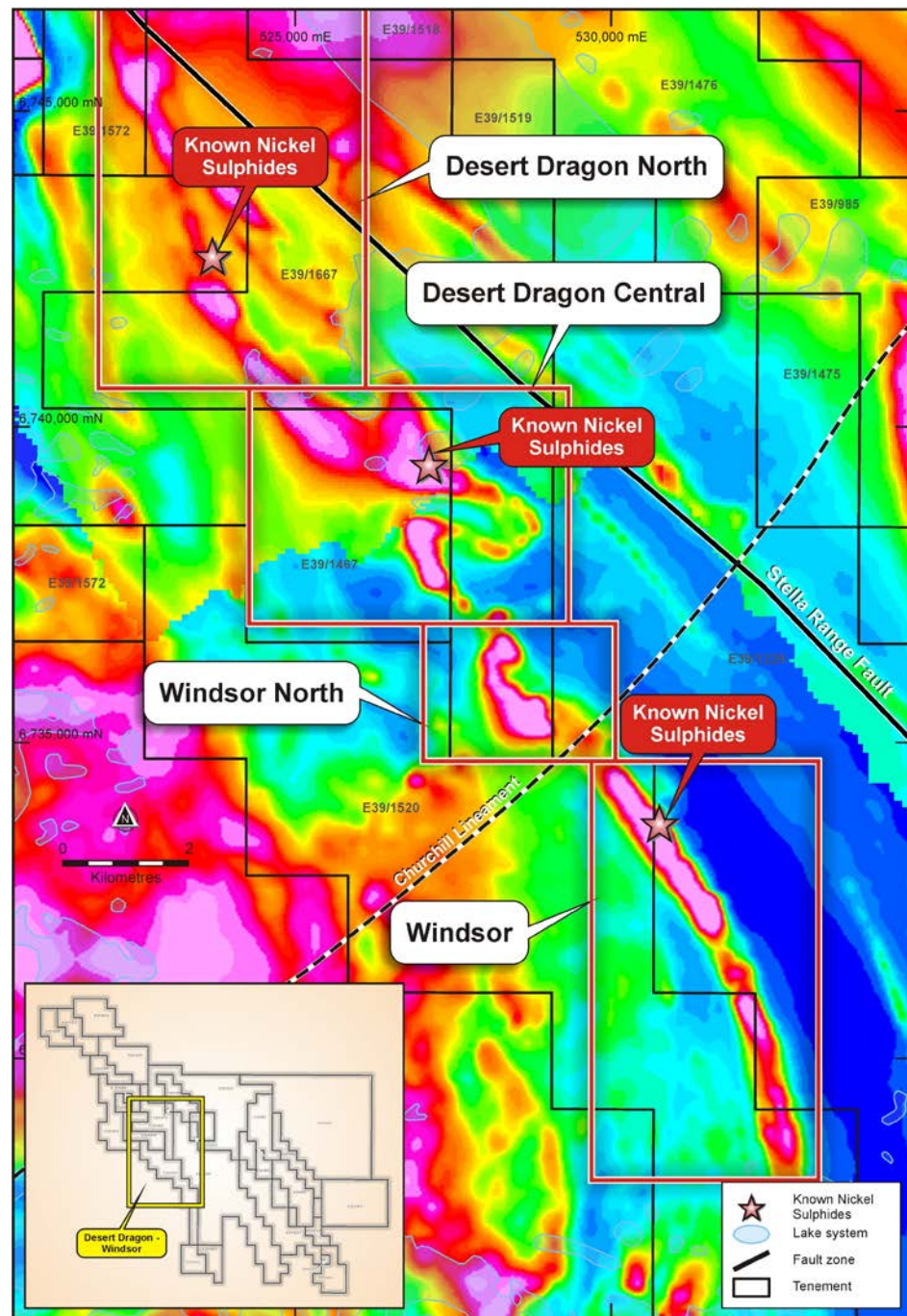
### ***Ongoing Nickel Exploration:***

St George (100% owner) continuing exploration over +40km ultramafic belts with drilling of EM and geological targets

### ***Favourable Structural Features:***

Fundamental structures/faults that control gold and nickel mineralisation are prominent

*On right: map of the Desert Dragon-Windsor prospect area (against RTP magnetics) where nickel sulphides have been discovered; the inset shows the location of this area within the tenement package of the East Laverton Project.*





# Windsor Prospect

## Strong EM Conductors

### **Thick Ultramafic Channel:**

Very thick (+250m) high-MgO ultramafic channel

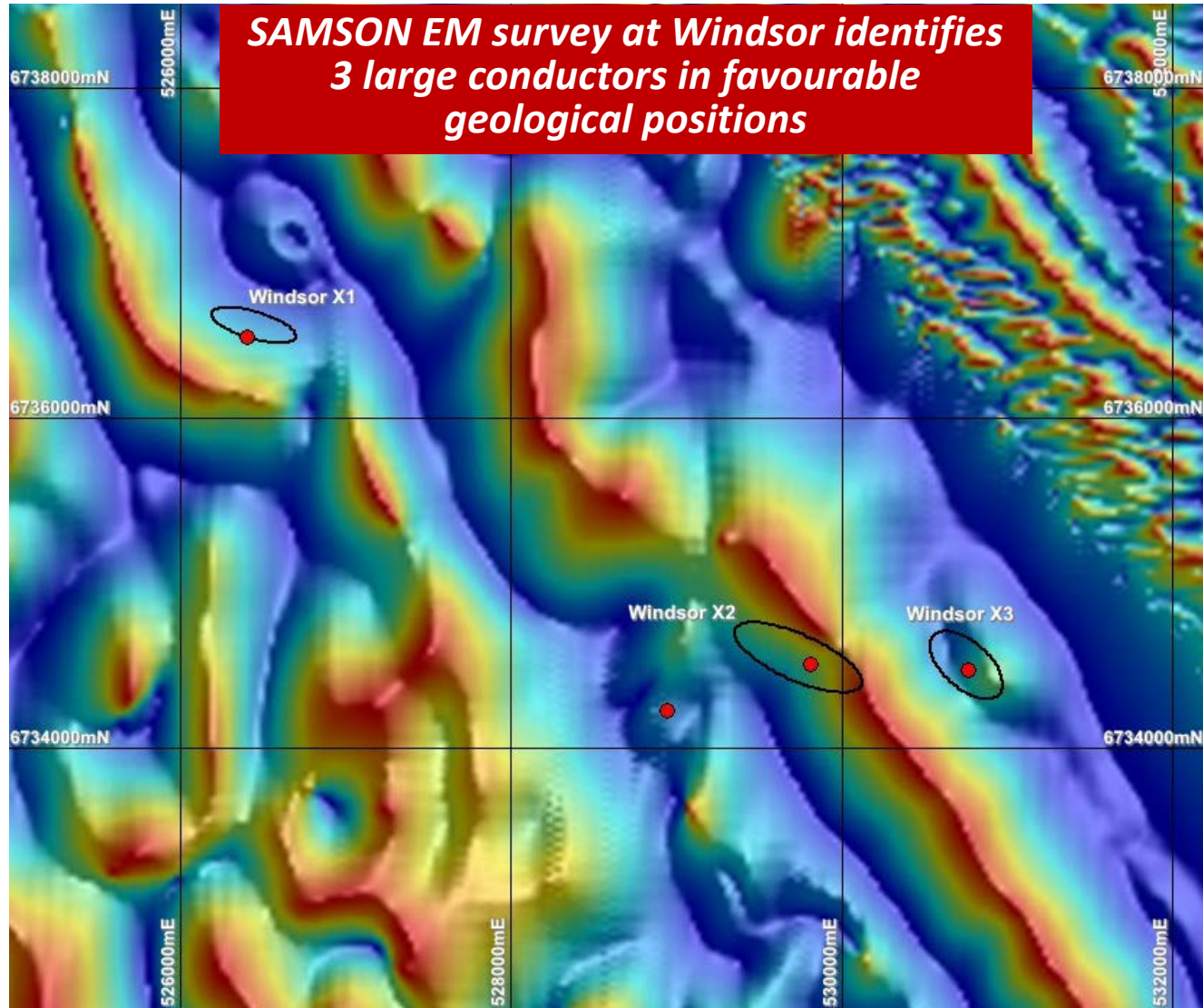
### **New EM Targets:**

Three large, late-time bedrock EM conductors detected by the recent high powered SAMSON EM survey between 150-280m below surface

### **Drill Testing Now:**

Drilling of EM conductors is underway

*On right: Map of the Windsor prospect (against RTP tilt mag data) showing the favourable location of the three EM conductors on the edge of magnetic features. Planned drill holes are depicted by red dots.*



# Nickel Market

## Upswing in Cycle is Underway

### Long Term Price Forecast:

- Consensus USD15,749/t and High USD23,150/t
- Strong price upside projected over the long term

### Essential Commodity:

- Stainless steel *plus* electric vehicles/new age batteries (no substitute)

### Commodity Price Performance Outlook

Commodity	Units	Current Price	LT Consensus Price	LT Consensus vs. Current Price
Cobalt	US\$/t	59,500	24,802	(58%)
Copper	US\$/t	6,416	6,208	(3%)
Nickel	US\$/t	10,395	15,749	52%
Zinc	US\$/t	3,168	2,173	(31%)
Lead	US\$/t	2,513	2,050	(18%)
Platinum	US\$/oz	940	1,242	32%
Palladium	US\$/oz	910	866	(5%)

**Nickel will outperform  
other commodities**

Source: Broker FactSet;  
Oct 2017.



# EV Demand for Nickel

## Market Dynamics About to Change

### Supply Constraint:

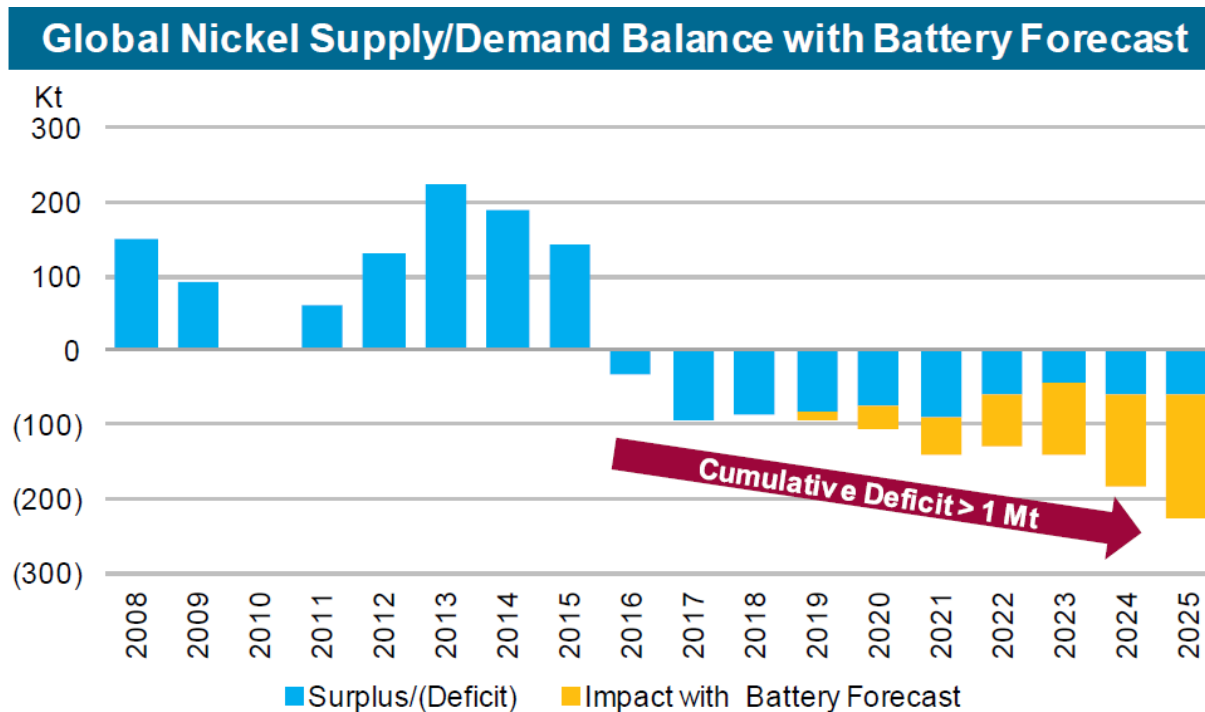
- Nickel supply in 2017 is 2,200,000 tonnes of nickel, growing to 2,500,000 tonnes by 2025
- Approx. 50% of supply is nickel pig iron, etc and not suitable for battery manufacture

### Demand Surge:

- Nickel demand rising on EV revolution: *1Mt deficit in 2025 = price pressure*

### High Quality Nickel Sulphide Poised to be Big Winner:

- Price divergence likely with nickel sulphide attracting a premium price



Left: Source –  
McKinsey Basic  
Materials Institute

# St George - Market Profile

## Strong shareholder base and market support

**Listed shares (SGQ):** 250,363,475  
**Listed options (SGQOB):** 24,663,235  
 SGQOB - exercise price of 20c, expiring on 30 Sept 2020.

**Share Ownership**  
 Top 10: 20%      Top 20: 28%  
 Directors: 6%

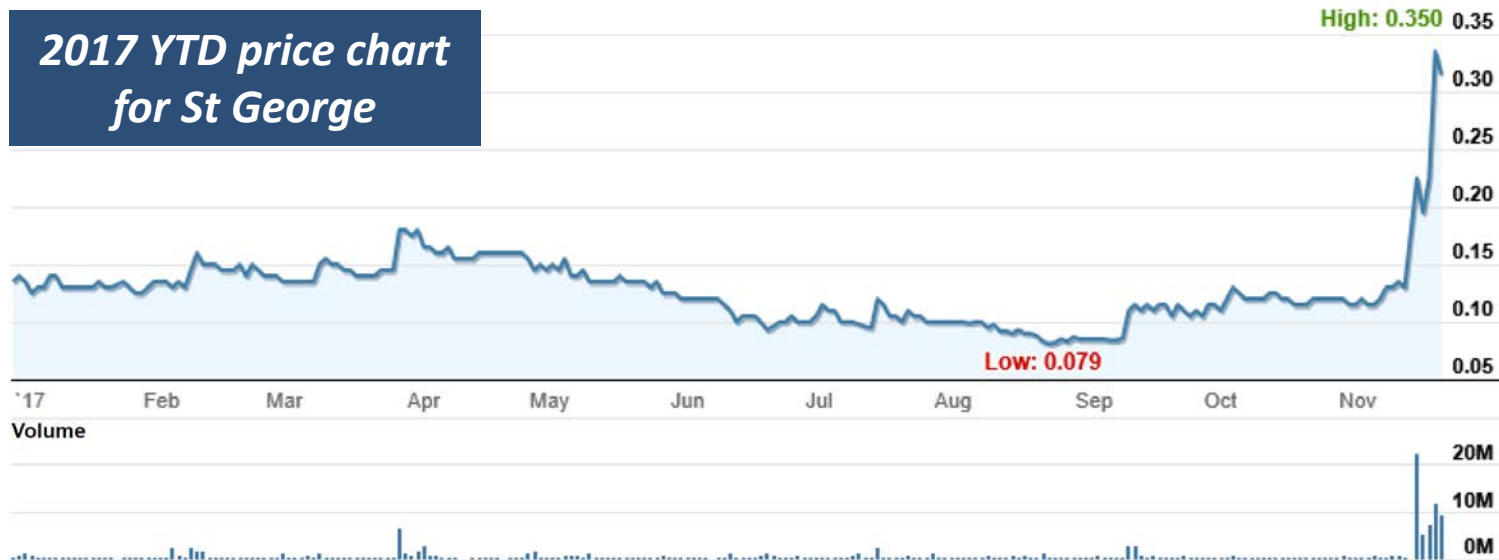
**Market cap:** \$78m (@31c per share)  
**Cash:** \$2.95m (as at 20 Nov 2017)

**Broad Shareholder Base:** Over 3,250 shareholders including retail investors, high net worths, Australian and overseas institutions

### Largest Shareholders

Impulzive: 4.5%      City Natural Res's: 4%  
 John Prineas: 4.16%      Oceanic Capital: 3%

Oversubscribed capital raising in August 2016 by **Bell Potter, Argonaut and RM Capital**





# St George Mining

## Growth Nickel Stock

### High Grade Discovery:

- High grade nickel-copper-cobalt-PGE discovery at the Cathedrals Belt
- Drilling is ongoing; 24/7 until Christmas 2017

### Exploration Upside:

- Pipeline of targets at the Cathedrals Belt
- Regional exploration at Mt Alexander over the 200 sq km project area offers opportunity for more discoveries
- Systematic exploration at East Laverton

### Major Re-rating of SGQ:

- Growing a resource inventory through upswing in nickel price cycle

*On right: drill core from MAD60 with large pentlandite crystals prominent in the core. This section of core is from an interval that returned assays of 3m @ 6.40%Ni, 3.55%Cu, 0.21%Co and 5.25g/t total PGEs from 159.38m*



## DISCLAIMER:

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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 Tim Hronsky, a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Tim Hronsky is employed by Essential Risk Solutions Ltd which has been retained by St George Mining Limited to provide technical advice on mineral projects.

The information in this report that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves regarding the Hawaii and Mt Alexander Projects is based on information compiled by Mr Matthew McCarthy, a Competent Person who is a Member of The Australasian Institute of Geoscientists. Mr McCarthy is employed by St George Mining Limited.

This ASX announcement contains information extracted from the following reports which are available on the Company’s website at [www.stgm.com.au](http://www.stgm.com.au):

- 22 September 2016 *Assays Confirm Significant Nickel-Copper Mineralisation*
- 20 October 2016 *Strong Results Continue at Mt Alexander*
- 6 April 2017 *Drilling Success Continues at Mt Alexander*
- 1 May 2017 *Thick Mineralisation Intersected at Mt Alexander*
- 5 May 2017 *Drilling Extends High Grade Nickel-Copper Sulphides*
- 10 May 2017 *Further Significant Intersections at Mt Alexander*
- 5 July 2017 *High Grade Nickel-Copper-Cobalt-PGEs at Investigators*
- 19 July 2017 *High Grade Nickel-Copper-Cobalt-PGEs at Investigators*
- 12 September 2017 *Mt Alexander – Exploration Update*
- 20 September 2017 *Nickel Sulphide Exploration at Windsor*
- 26 October 2017 *Drilling Commences at Mt Alexander*
- 30 October 2017 *New EM Conductors at Windsor Nickel Sulphide Prospect*
- 10 November 2017 *St George Prepares to Drill EM Conductors at Windsor*
- 13 November 2017 *Further High Grade Mineralisation at Mt Alexander*
- 20 November 2017 *Outstanding Intersection of Nickel-Copper Sulphide*
- 23 November 2017 *Drilling Extended at Mt Alexander*

The Company confirms that it is not aware of any new information or data that materially affects the exploration results included in any original market announcements referred to in this report and that no material change in the results has occurred. The Company confirms that the form and context in which the Competent Person’s findings are presented have not been materially modified from the original market announcements.