



**ST GEORGE**  
MINING LIMITED

# *'Nickel Sulphide Exploration Continues to Create Value'*

17 October 2017  
Australian Nickel Conference



St George Mining Limited | ACN 139 308 973

# Nickel Market

## Upswing in Cycle is Underway

- Nickel is flying under the radar compared to lithium
- Nickel is an essential commodity with increasing demand for:
  - stainless steel and electric vehicle and new-age batteries
- Forecast for a potential 200% increase in the nickel price by 2020
  - ***Now is the time to gain exposure to a rebound in the nickel price***

☐ 5 year price graph shows that the long term trend is changing; 6 month price graph shows clear upswing

5 Year Nickel Spot



6 Month Nickel Spot



# EV Demand for Nickel

## Market Dynamics About to Change

### **Demand Growth:**

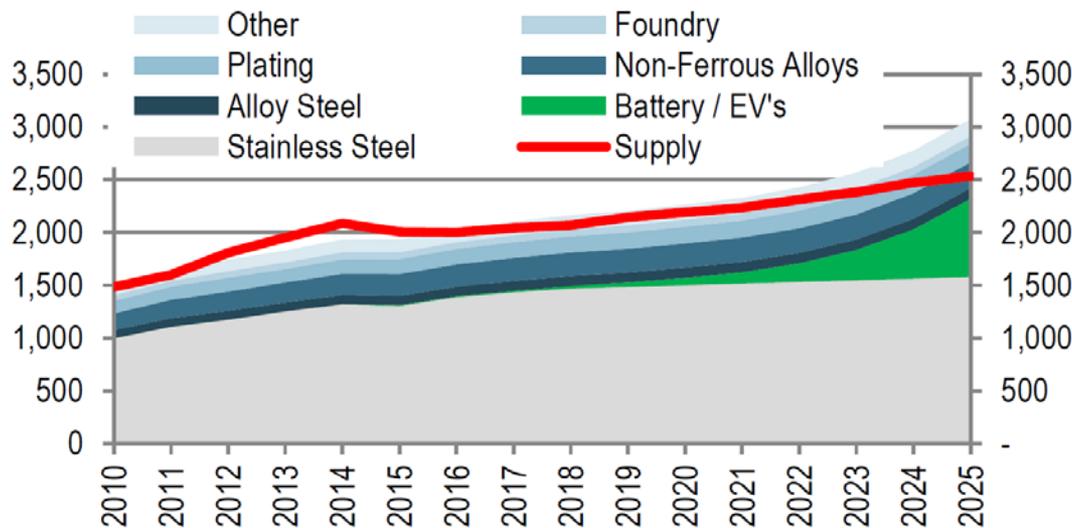
- Growth in EV battery manufacture forecast to increase nickel demand by 300,000 to 900,000 tonnes of nickel per year by 2025
- Incremental demand for nickel from the EV market will continue to rise rapidly after 2025

### **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

### **Nickel Sulphide Poised to be Big Winner:**

- *150k tonnes of extra supply to meet 300-900k tonnes of new demand = price pressure*



*Left: Sources of nickel demand with EV/battery demand growing strongly (Source: Roskill/UBS)*

# St George Mining

## Growth Stock for Nickel

### High Grade Discovery:

- High grade nickel-copper-cobalt-PGE discovery at Mt Alexander with drilling ongoing at the Cathedrals Belt

### Exploration Upside:

- Regional exploration at Mt Alexander offers opportunity for more discoveries
- Strong EM conductors at East Laverton being drilled

### Creating Value:

- St George is growing its resource inventory through the upswing in the nickel price cycle
- Ideal scenario for a major re-rating and creation of shareholder value

*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*



# Overview of St George Mining

## High Quality Explorer

### ASX listed: SGQ

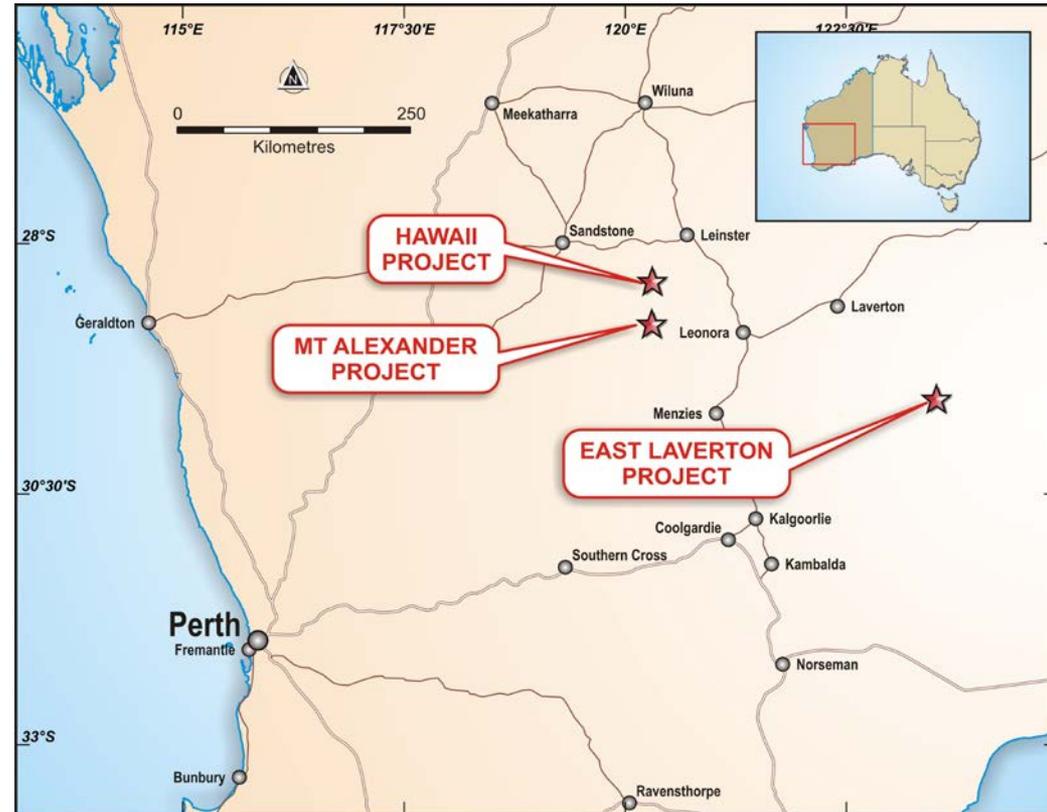
- *Based in Perth, Western Australia*

### 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*

# Corporate Snapshot

## Strong shareholder base and highly qualified team

### Capital Structure

Listed shares (SGQ): 250,360,825  
Listed Options (SGQOB): 24,665,885  
- bonus option issue; exercise price of 20c, expiring on 30 Sept 2020; trading on ASX started 4 October 2017

Market cap: \$30m (@12c per share)  
Cash: \$4.7m (as at 30 June 2017)

### Largest Shareholders

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

### Share Ownership

Top 10: 20% Top 20: 28%  
Directors: 6%

**Broad Shareholder Base:** Over 3,150 shareholders including retail investors, high net worths, Australian and overseas institutions

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

### Directors, Technical Team

**John PRINEAS, Executive Chairman** – founding shareholder with over 25 years experience in banking and legal sectors servicing the resources industry.

**Tim HRONSKY, Technical Director** - over 25 years as a geologist in the global exploration and mining industry, including 15 years with Placer Dome Inc.

**Sarah SHIPWAY, Non-executive Director/Company Secretary** - Chartered Accountant with extensive experience in advising listed exploration companies.

**Matthew McCARTHY, Exploration Manager** - ex-BHP Billiton; part of the team that discovered the Venus nickel sulphide deposit (+200,000 Ni) at Leinster.

**Charles WILKINSON, Technical Consultant** – 32 years as a geologist. General Manager Exploration at Western Areas for 10 years; part of the team that developed Spotted Quoll and established WSA as Australia's No. 1 independent nickel producer.

**Newexco** - Leading geophysicists. Advisers on Nova-Bollinger deposit for Sirius Resources NL, and the Spotted Quoll and Flying Fox deposits for Western Areas.

# 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)

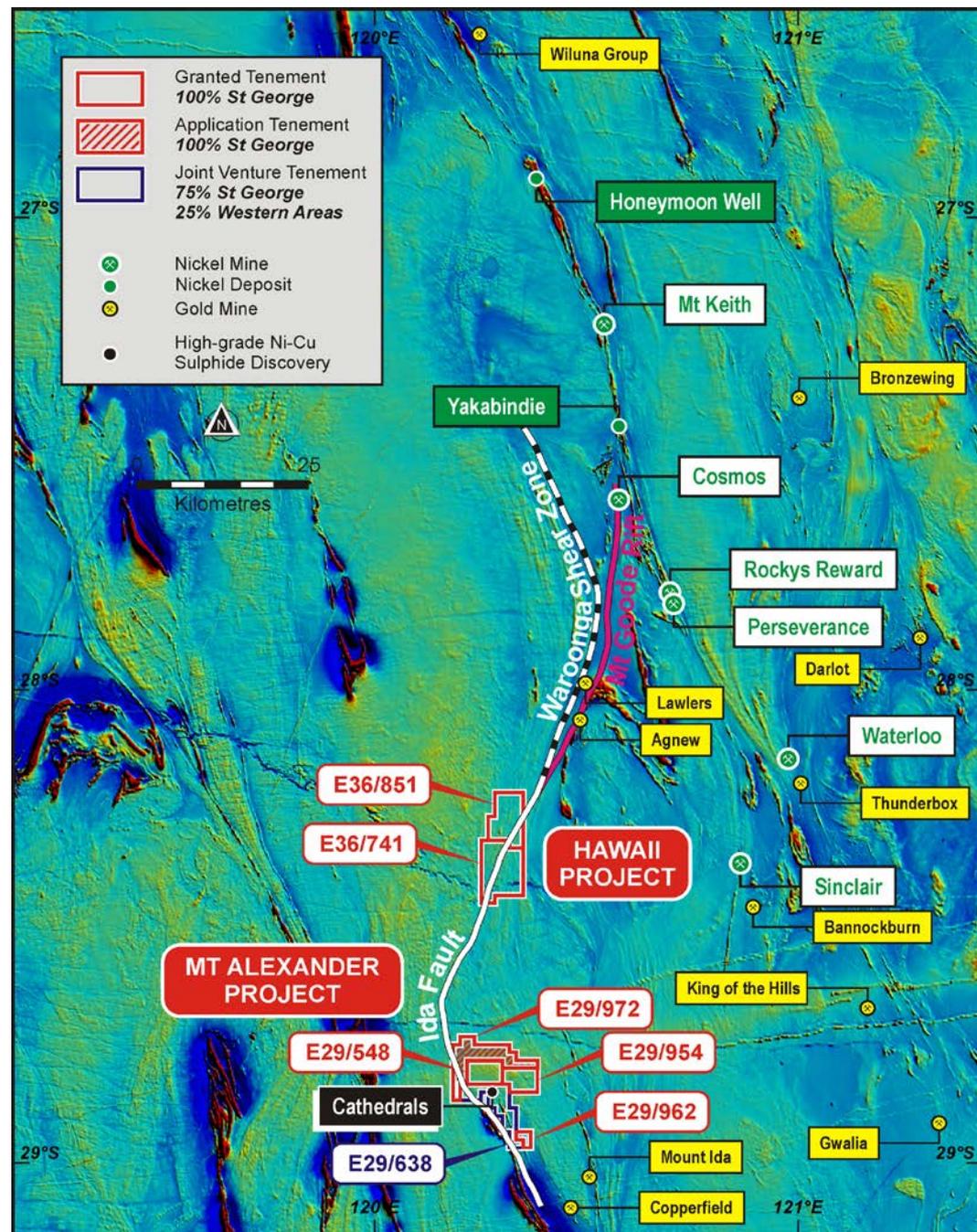
### Underexplored Project

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

### Significant Exploration Potential

- Current exploration is focused on the Cathedrals Belt
- Broader 200 sq km project area offers more exploration potential

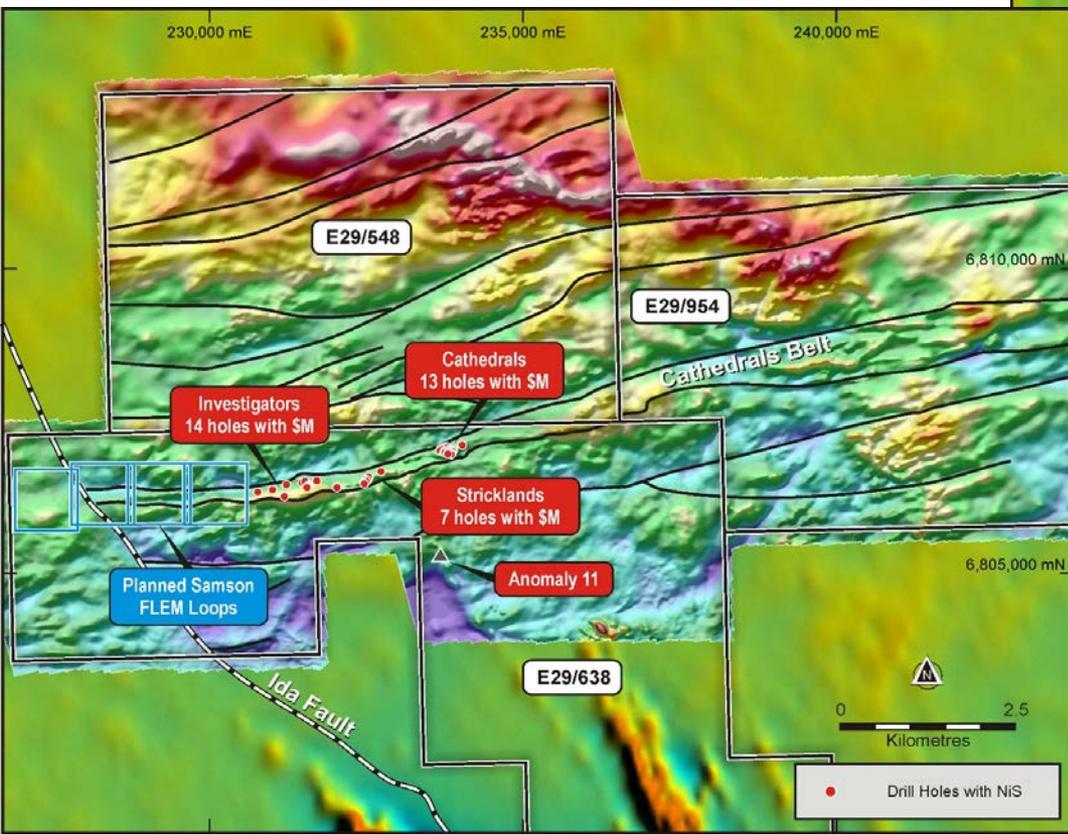
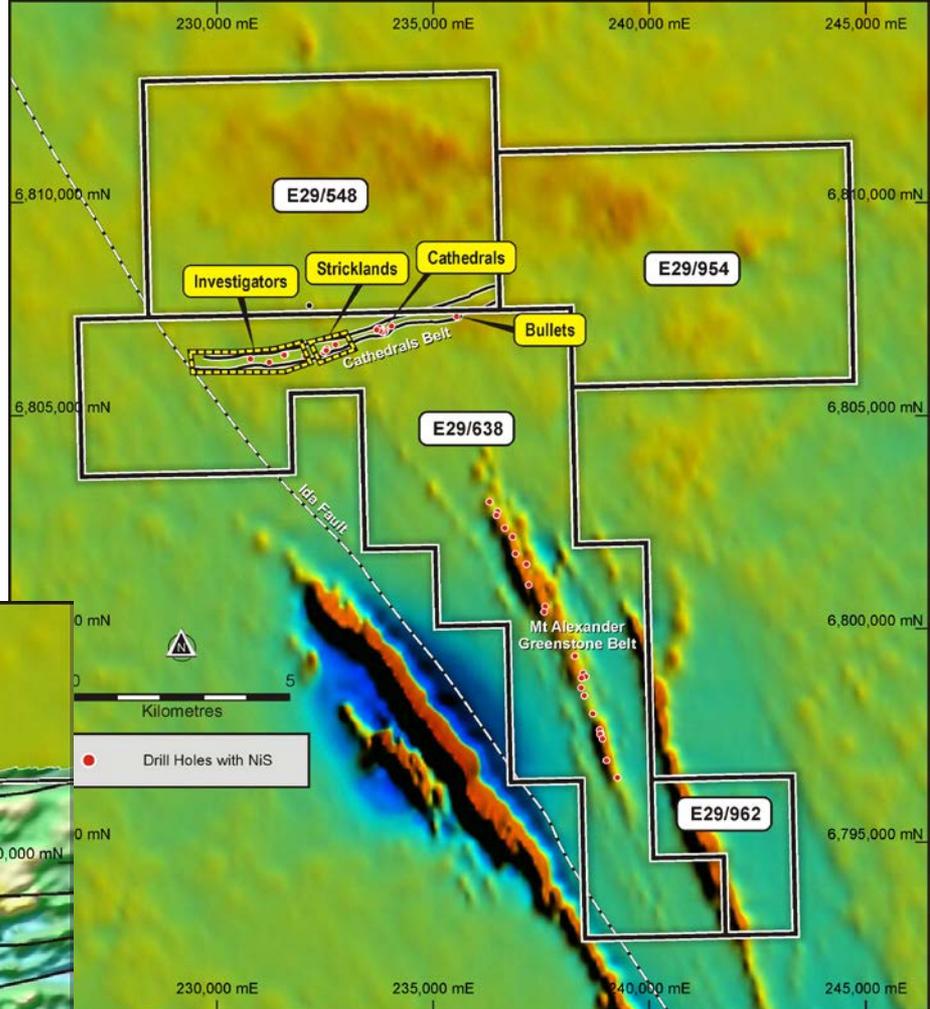
The Cathedrals, Stricklands and Investigators Prospects are located on E29/638, which is held in joint venture by Western Areas Limited (25%) and St George (75%). St George is the Manager of the Project with Western Areas retaining a 25% non-contributing interest in the Project (in regard to E29/638 only) until there is a decision to mine. St George has 100% of all other tenements at Mt Alexander.



# Drilling Success

## Mineralisation is Extended

- ✓ Recurrent mineralisation now over 3.5km strike on east-northeast Cathedrals Belt
- ✓ Drilling intersects nickel-copper sulphides in every EM conductor drilled
- ✓ Mineralisation from 30m below surface
- ✓ Further EM targets for test drilling



*Above: map of four granted project tenements (against TMI RTP magnetics)*

*Left: map of the 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 the latest area to be survey by SAMSON EM.*

# 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

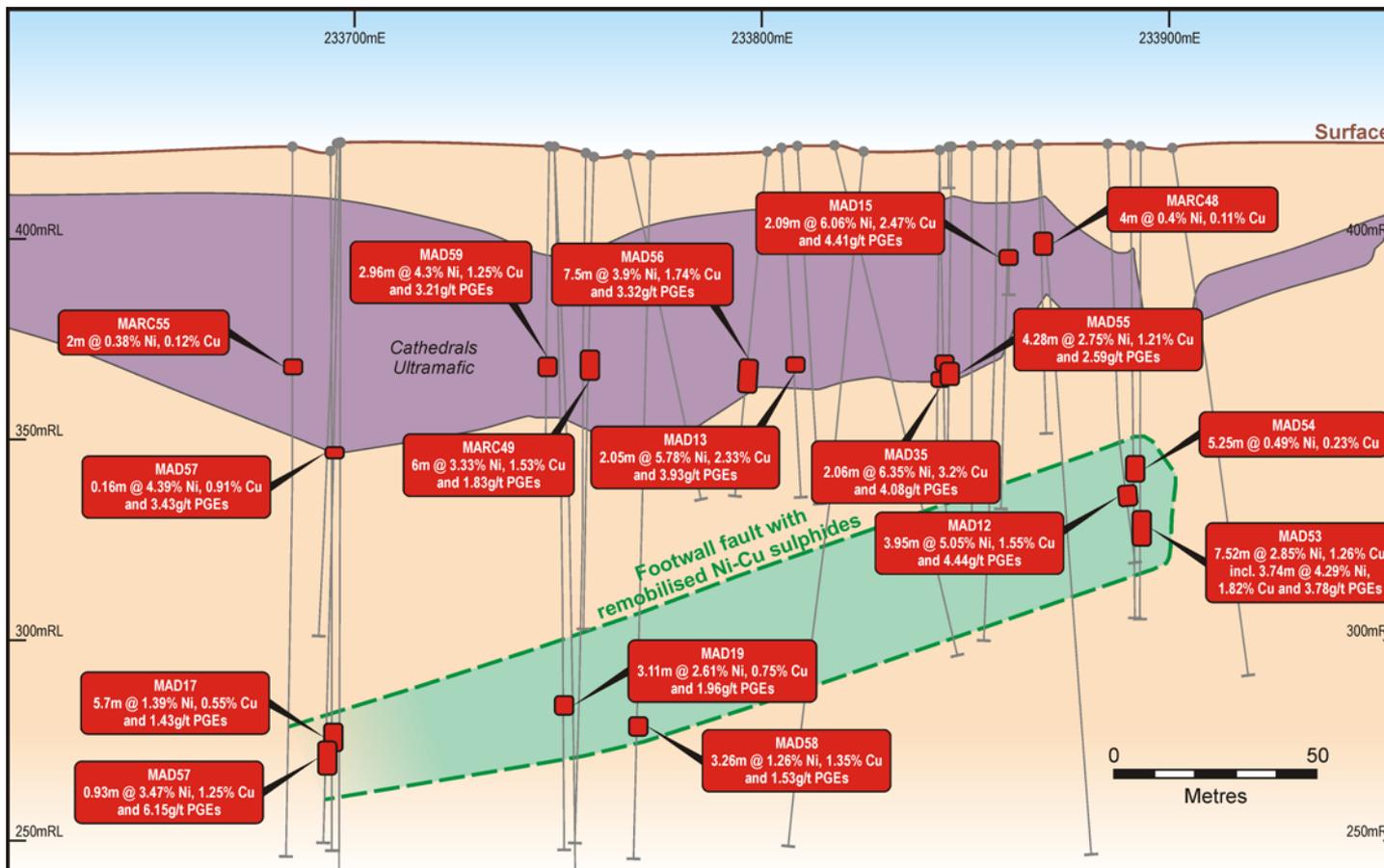
*(On right: Drill core from MAD56. The section of core is from an interval that returned assays of **3.15m @ 6.36%Ni, 2.92%Cu, 0.20%Co and 5.03g/t total PGEs from 61.81m***



# Cathedrals Prospect

## High Grade Mineral System

- Numerous intersections of high grade mineralisation on two surfaces – the Cathedrals ultramafic and the footwall fault below – with infill and extensional drilling ongoing
- Cathedrals ultramafic extends for strike length of 400m with potential for extensions



*Left: a long section of the Cathedrals Prospect (looking north) showing significant intersections from both recent and historic drill holes. The Cathedrals ultramafic and footwall fault outlines are also shown.*

# 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



### ***The Analyst says: Wood Mackenzie:***

“By 2020 there will be a need for new project development. We estimate that the promise of a **long-term nickel price of US\$22,000/t (US\$10.00/lb)** should be enough to incentivise those new projects.”

*Left: Tim King Pit at Spotted Quoll mine at Forrestania (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

BHP (under a concluded farm-in arrangement) discovered nickel sulphides, confirming thick and fertile ultramafics:

- 18m @ 0.40% Ni from 100m incl. 4m @ 0.57%Ni from 100m in discovery hole DRAC35
- 30m @ 0.31% Ni from 108m incl. 8m @ 0.44%Ni from 130m and 2m @ 0.62%Ni from 132m in discovery hole DRAC38

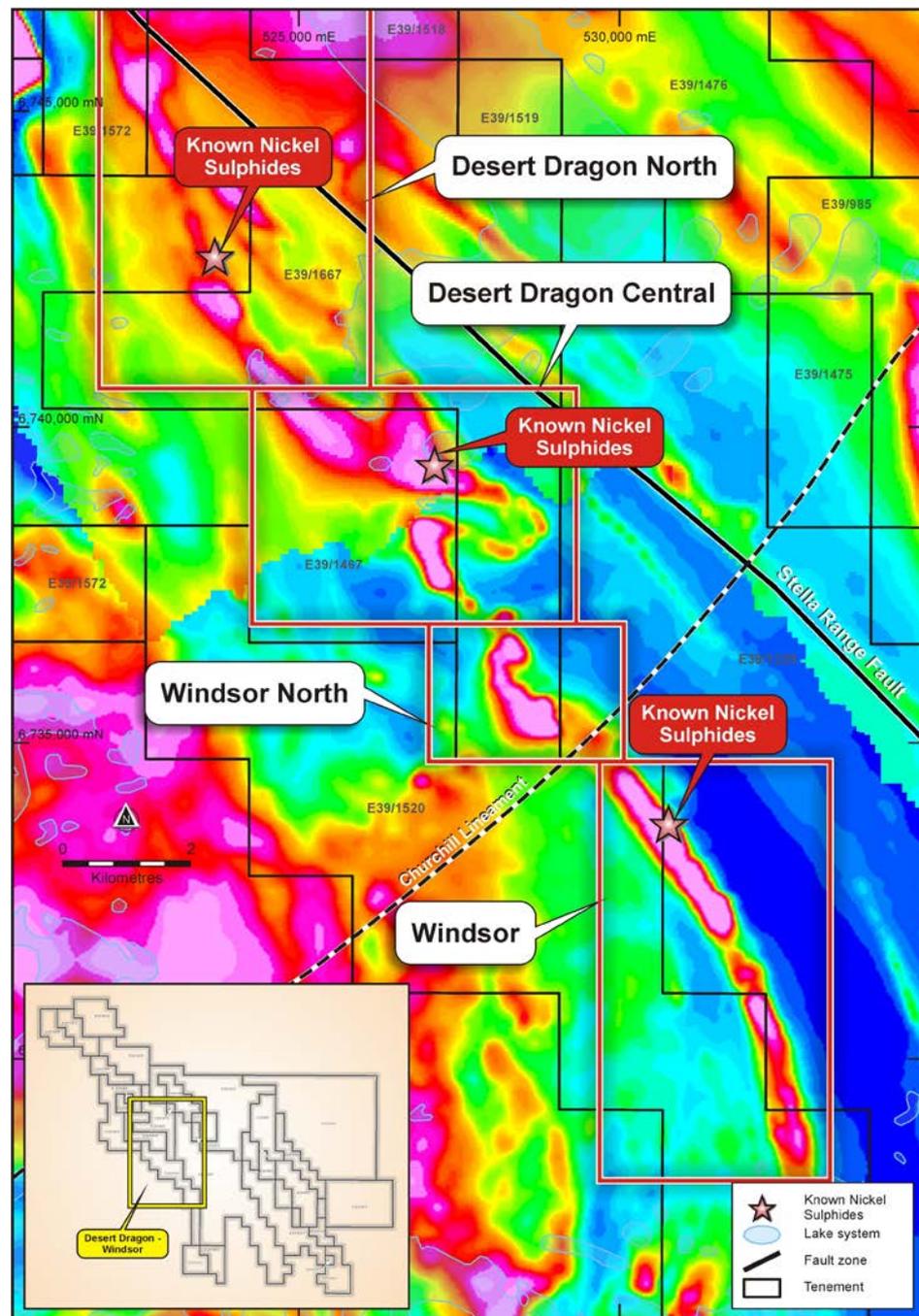
### Ongoing Nickel Exploration

St George 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 high-MgO ultramafic channel confirmed by drilling including a 215m thick intersection in WINRC016

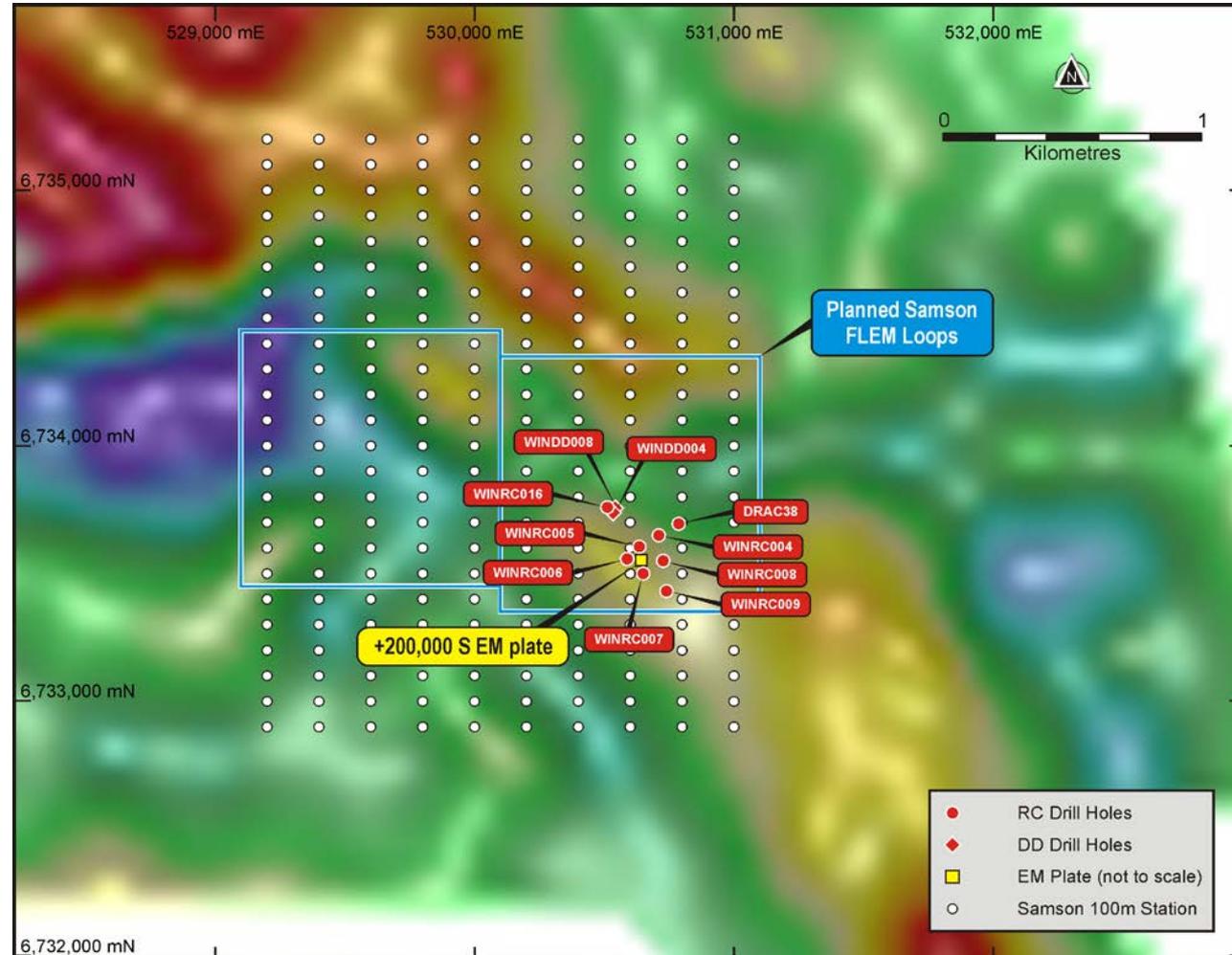
### Magmatic Sulphides Confirmed

Magmatic nickel sulphides in numerous drill holes

### EM Targets

+200,000 Siemens EM conductor identified

*SAMSON survey underway at Windsor with further EM targets anticipated*



*On right: high priority area at Windsor (over FVD Bouguer gravity data) being covered by the SAMSON EM survey and where a +200,000 Siemens conductor has already been identified.*

# Drilling Recommences

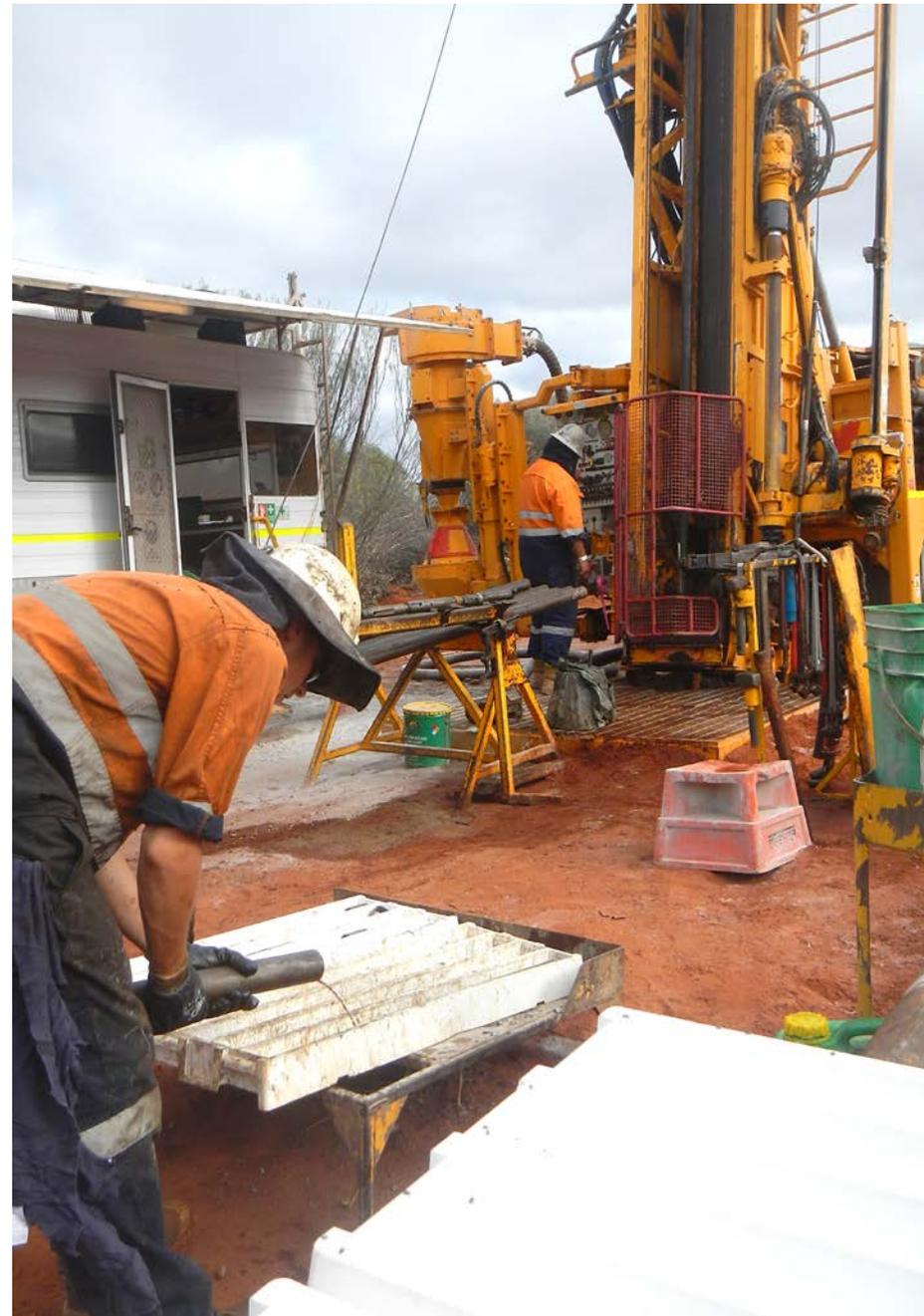
## +3,000m Diamond Drilling

### Mt Alexander

- New EM targets to be tested including conductors from SAMSON EM survey
- Continue extensional drilling
- First ever drilling to the south of the Cathedrals Belt
- First ever drilling in the western extension of the Cathedrals Belt, near the Ida Fault
- First ever deep drill holes (+400m) to test mineralisation at depth
- *Drilling starts next week*

### East Laverton

- Drilling of the largely unexplored basal contact of the thick channel at Windsor
- New EM conductors at Windsor from latest SAMSON EM survey



## **DISCLAIMER:**

Certain statements contained in this presentation, including information as to the future financial or operating performance of St George Mining Limited (ASX:SGQ) and its projects, are forward looking statements:

- may include, among other things, statements regarding targets, estimates and assumptions in respect of mineral reserves and mineral resources and anticipated grades and recovery rates, production and prices, recovery costs and results, capital expenditures, and are or may be based on assumptions and estimates related to future technical, economic, market, political, social and other conditions;
- are necessarily based upon a number of estimates and assumptions that, while considered reasonable by St George Mining, are inherently subject to significant technical, business, economic, competitive, political and social uncertainties and contingencies; and
- involve known and unknown risks and uncertainties that could cause actual events or results to differ materially from estimated or anticipated events or results reflected in such forward looking statements.

St George Mining disclaims any intent or obligation to update publicly any forward looking statements, whether as a result of new information, future events or results or otherwise. The words “believe”, “expect”, “anticipate”, “indicate”, “contemplate”, “target”, “plan”, “intends”, “continue”, “budget”, “estimate”, “may”, “will”, “schedule” and similar expressions identify forward looking statements.

All forward looking statements made in this presentation are qualified by the foregoing cautionary statements. Investors are cautioned that forward looking statements are not guarantees of future performance and investors are cautioned not to put undue reliance on forward looking statements due to the inherent uncertainty therein.

## **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*
- 4 May 2017 *Major Gold and Nickel Drill Programme at East Laverton*
- 5 May 2017 *Drilling Extends High Grade Nickel-Copper Sulphides*
- 10 May 2017 *Further Significant Intersections at Mt Alexander*
- 2 June 2017 *Drilling at Windsor Nickel Sulphide Target*
- 5 July 2017 *High Grade Nickel-Copper-Cobalt-PGEs at Investigators*
- 6 July 2017 *Nickel Sulphide Exploration at Windsor is Escalated*
- 19 July 2017 *High Grade Nickel-Copper-Cobalt-PGEs at Investigators*
- 27 July 2017 *Gold Drilling at East Laverton*
- 12 September 2017 *Mt Alexander – Exploration Update*
- 20 September 2017 *Nickel Sulphide Exploration at Windsor*

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.

## *St George Mining: creating shareholder wealth through exploration success*

*On left: drill core from MAD56 at Mt Alexander which returned assays of:*

**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**

