

21 March 2019

**PRESENTATION – BATTERY METALS CONFERENCE, PERTH**

St George Mining Limited (ASX: **SGQ**) ('St George' or 'the Company') is presenting at the Battery Metals Conference in Perth today.

A copy of the Presentation for the Conference is attached.

The Presentation includes a discussion of the drill programme currently underway at our Mt Alexander Project.

We are also pleased to advise that, in light of strong drill results to date – please see our ASX release dated 18 March 2019 *"Drilling at Mt Alexander – Strong Results Continue"* – the drill programme will be escalated with a second reverse-circulation drill rig scheduled to arrive at the Mt Alexander Project later this week.

**For further information, please contact:**

**John Prineas**

Executive Chairman

St George Mining Limited

+61 (0) 411 421 253

[John.prineas@stgm.com.au](mailto:John.prineas@stgm.com.au)

**Peter Klinger**

Media and Investor Relations

Cannings Purple

+61 (0) 411 251 540

[pklinger@canningspurple.com.au](mailto:pklinger@canningspurple.com.au)



# *Building a High-Grade Nickel Sulphide Inventory in Western Australia*

Battery Metals Conference, Perth  
20 and 21 March 2019



St George Mining Limited | ACN 139 308 973

**ASX: SGQ**

# Growth Nickel Stock

*Creating Shareholder Value through Exploration Success*



## Growth Focused Nickel Sulphide Explorer/Developer:

- Outstanding discovery of high-grade nickel-copper-cobalt-PGEs at Mt Alexander
- Drilling continues to expand the footprint of mineralisation
- Located in one of the world's largest nickel producing regions

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*Photo: Diamond drilling at Mt Alexander for St George by DDH1 Drilling*



# Nickel Market Outlook

*Nickel is a Essential to the EV and Battery Revolution*

## Compelling Scenario for Sustainable Price Increases:

- Demand for battery grade nickel predicted to increase 10x over next 10 years
- Stockpiles falling rapidly; deficits increasing
- Incentive price for supply response is US\$21,000/t (*currently circa. US\$14,000/t*)



# Corporate Overview



*St George is listed on the ASX:*

**Listed shares (SGQ):** 298,116,211

**Listed options (SGQOB):** 24,579,714

*SGQOB - exercise price of 20c, expire 30 Sept 2020.*

**Market cap: A\$48m** (@16c per share)

**Cash: A\$2.1m** (at 31 Dec 2018)

## Broad Shareholder Base

Over 3,500 shareholders including Australian and overseas institutions, high net worths and retail investors

## Share Ownership

Top 10: 19%      Top 20: 29%

Directors: 9.16%

## Largest Shareholders

John Dawson: 4.6%

John Prineas: 4.4%

City Natural Res's: 3%

## Broker Coverage:

Argonaut: *Spec Buy*

Bell Potter: *Spec Buy*

## Directors and Management with a Track Record of Success

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

**John DAWSON, Non-executive Director** – over 30 years in the finance and mining sectors where he occupied very senior roles with global investment banks Goldman Sachs and Dresdner Kleinwort Wasserstein.

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

**Dave O'NEILL, Exploration Manager** – over 20 years experience as a geologist with particular expertise in nickel sulphide exploration gained in senior roles with WMC Resources, BHP and Western Areas; has managed exploration programmes at Mt Alexander for BHP and Western Areas.

**Charles WILKINSON, Technical Consultant** – over 32 years' as a geologist with 16 years at WMC including as Exploration Manager - Nickel. Joined Western Areas in 2008 as General Manager Exploration. During his 9 years at WSA, it significantly grew its resource inventory and became Australia's No. 1 independent nickel sulphide producer.

# Nickel Market Dynamics

# A Small Number of Global Players

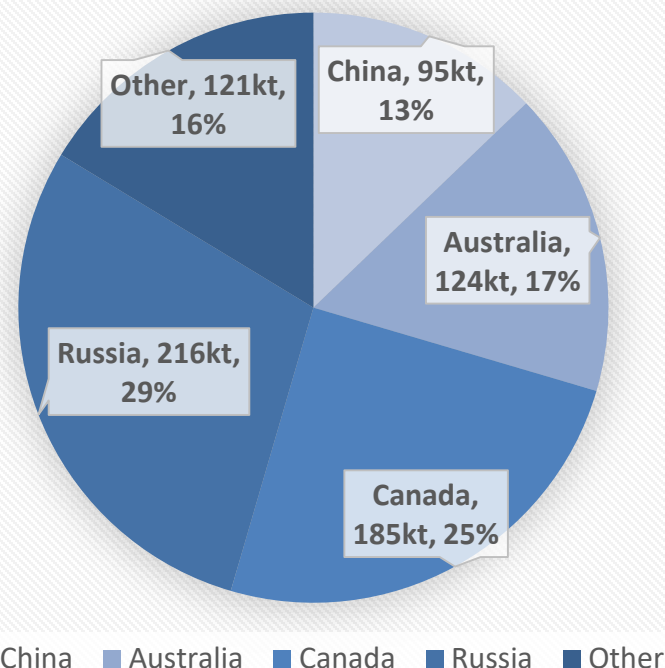
## *WA Is a Critical Source of Nickel Sulphide*

- WA has been a major global producer of high-grade nickel sulphide for several decades BUT production is falling
- New discoveries are needed for WA to maintain global position
- Nickel sulphide is Class 1 nickel and the low cost alternative for producing battery grade nickel sulfate

### Global Nickel Sulphide Production

	1998	2008	2018
<b>Total</b>	<b>669kt</b>	<b>812kt</b>	<b>741kt</b>
Australia	145kt	166kt	124kt
Canada	207kt	258kt	185kt
Russia	190kt	222kt	216kt
China	48kt	70kt	95kt
Other	79kt	96kt	121kt

### 2018 – Global Nickel Sulphide Mine Production - Total 741kt



Source: Wood Mackenzie

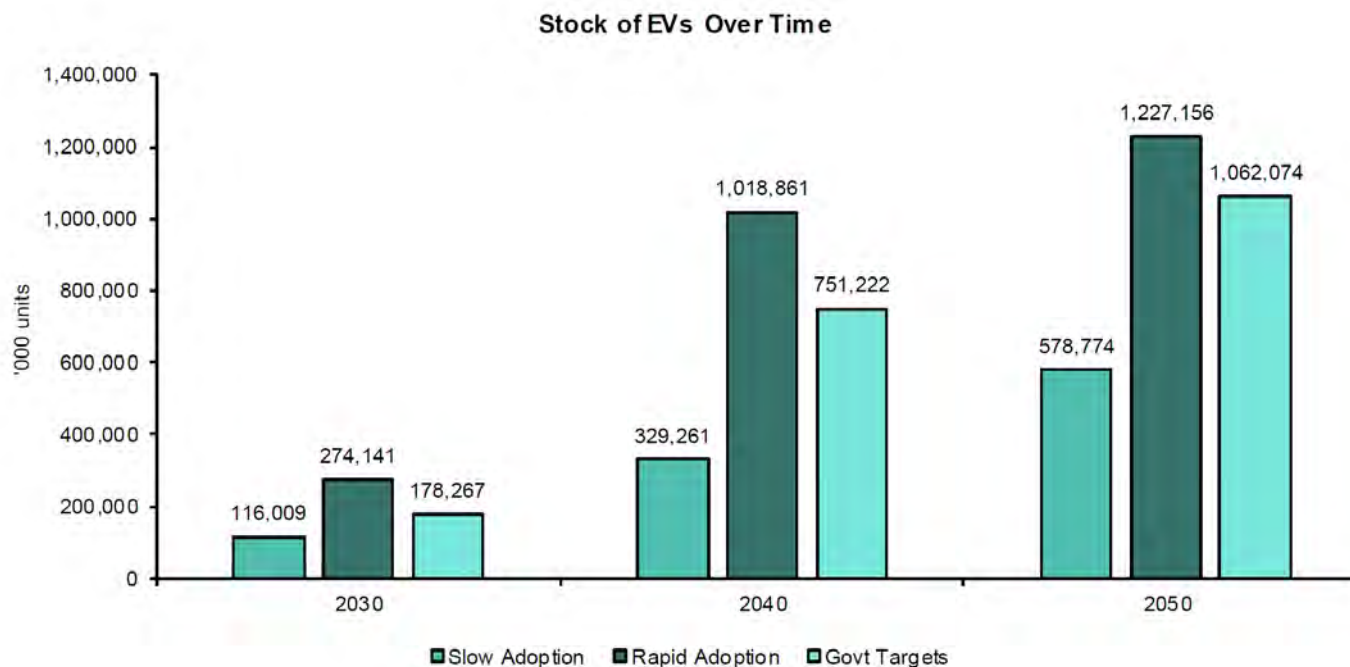
# Electric Revolution

## Investment Thematic

*“One of the most important global trends over the next decade and beyond will be the electrification of mobility, which will have massive ramifications for autos, batteries and the entire upstream battery supply chain.”*

*“We see the miners as the perfect way to play the EV theme.”*

Source: Bernstein, Electric Revolution 2019, 4 March 2019





# Supply Challenge

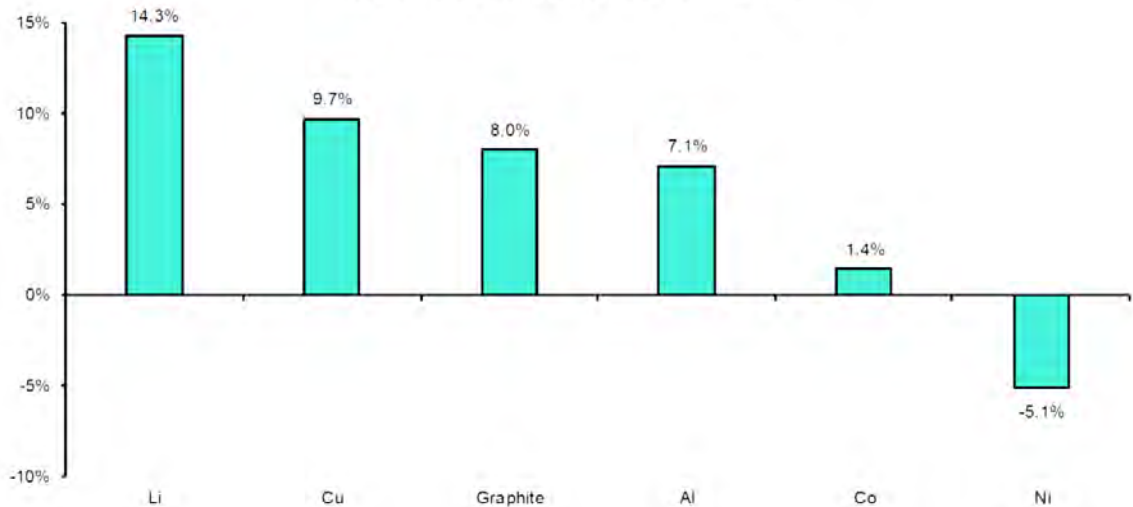
## *Reserves are Falling*

Nickel faces the biggest supply challenge of all battery metals:

- *Reserves are falling*
- *Reserve life is lowest of all battery metals*

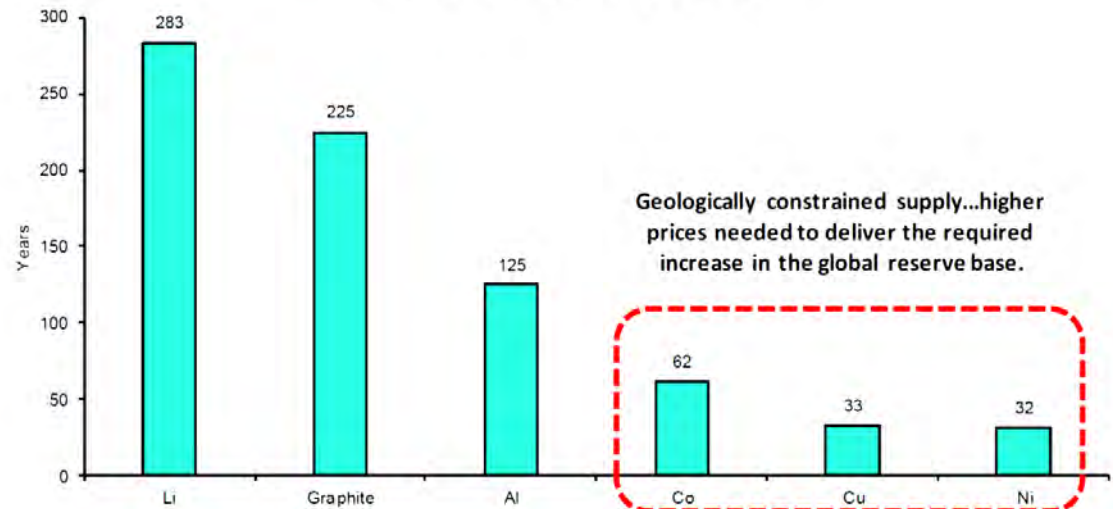
Nickel price needs to rise to incentive price – US\$21,000/t – to generate investment in new project

Growth in Global reserve Base - 2017 to 2018



Source: USGS, Bernstein analysis & estimates

Reserve Life of Major Battery Materials

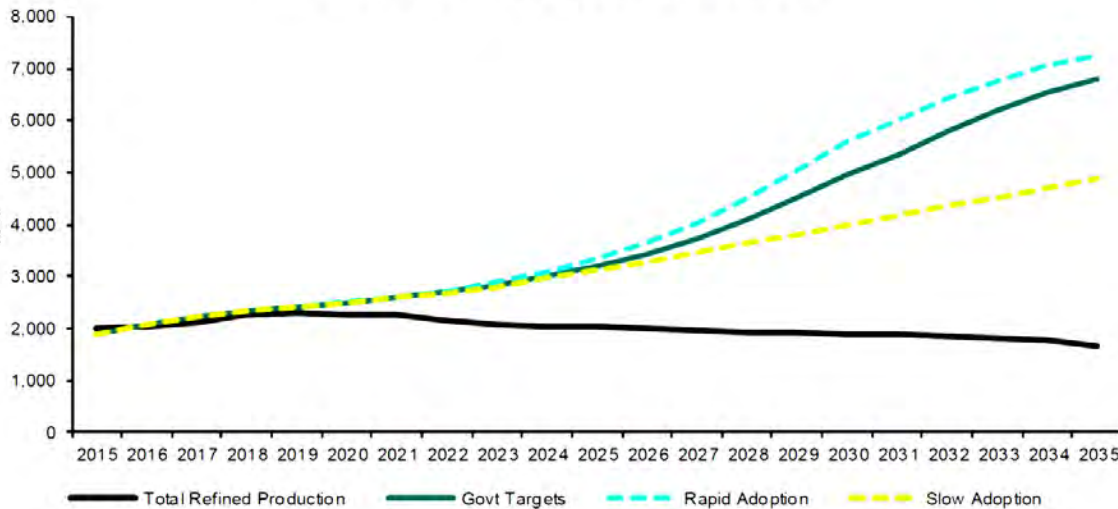


Source: USGS, Bernstein analysis & estimates

# EV Demand

**Big impact on nickel**

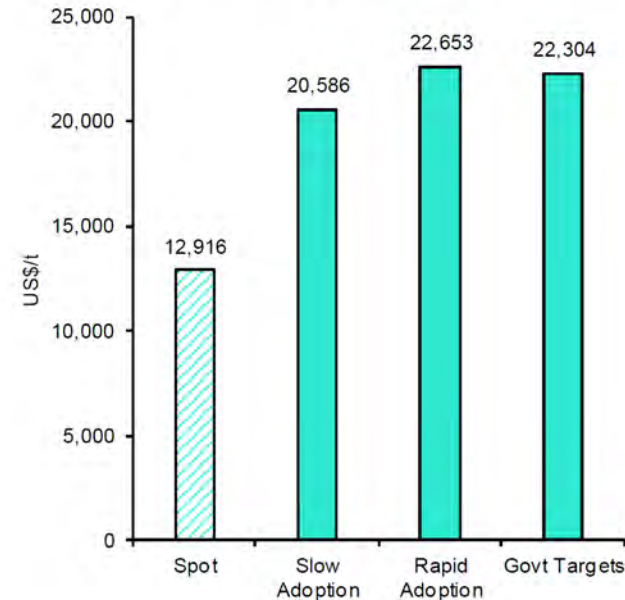
Refined Nickel Supply & Demand by EV Scenario



Source: Wood Mackenzie, Bloomberg, SNL, Bernstein analysis & estimates

**Right: Nickel price will rise significantly in all scenarios of EV adoption**

Nickel Price Scenarios



Source: Bernstein analysis & estimates

**Market Impact: BHP announces that 90% of nickel sulphide production will be sold for batteries from 2019 to meet increasing demand from EV's:**  
*Diggers & Dealers Conference, 7 August 2018*

# Nickel Price Outlook

## *Sustainable Price Increases*

LME and SHFE stocks have fallen steadily from 370 kt in December 2017 to below 200 kt today

Clear upswing in nickel price driven by:

- Cyclical growth in demand plus structural change
- Traditional stainless steel demand for nickel up 5% in 2018
- Structural growth in demand with EV and battery revolution

Nickel price already outperforming other battery metals (*see graph on right*)

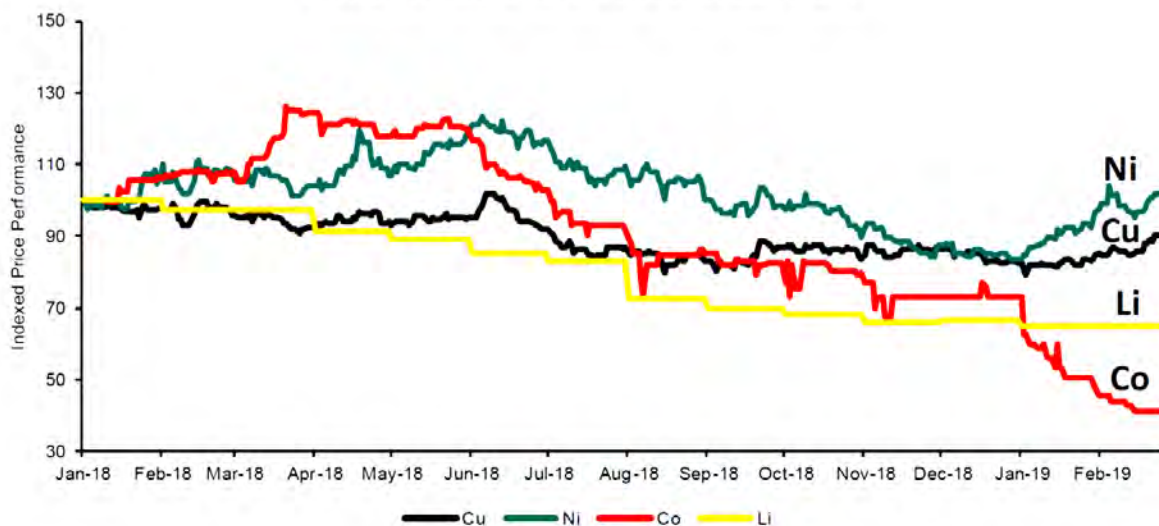
Class 1 nickel sulphide will achieve largest profit margins for producers - lowest cost to process into battery grade nickel sulfate

### Long Term Price Forecasts Set to Increase

(US\$ / t)



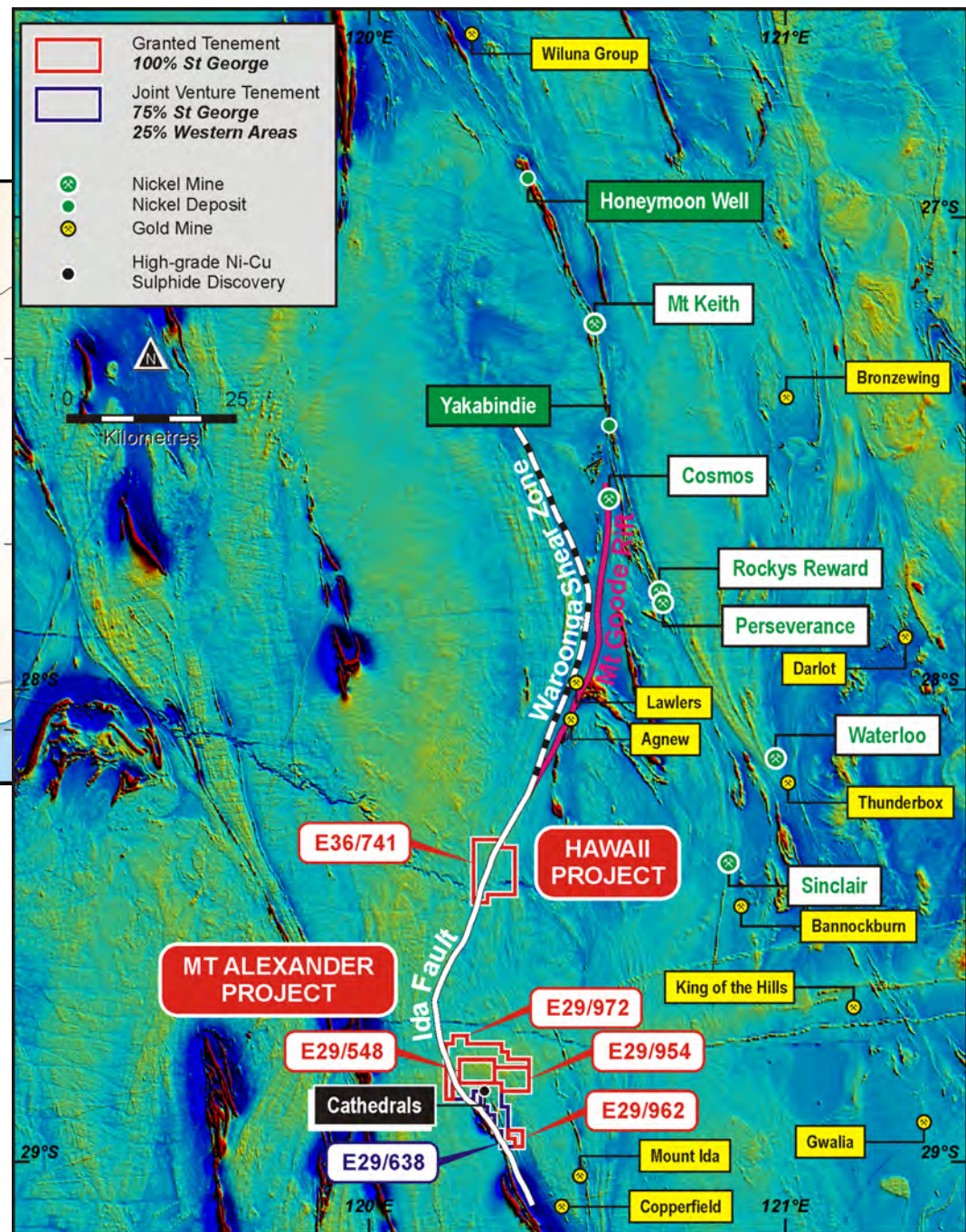
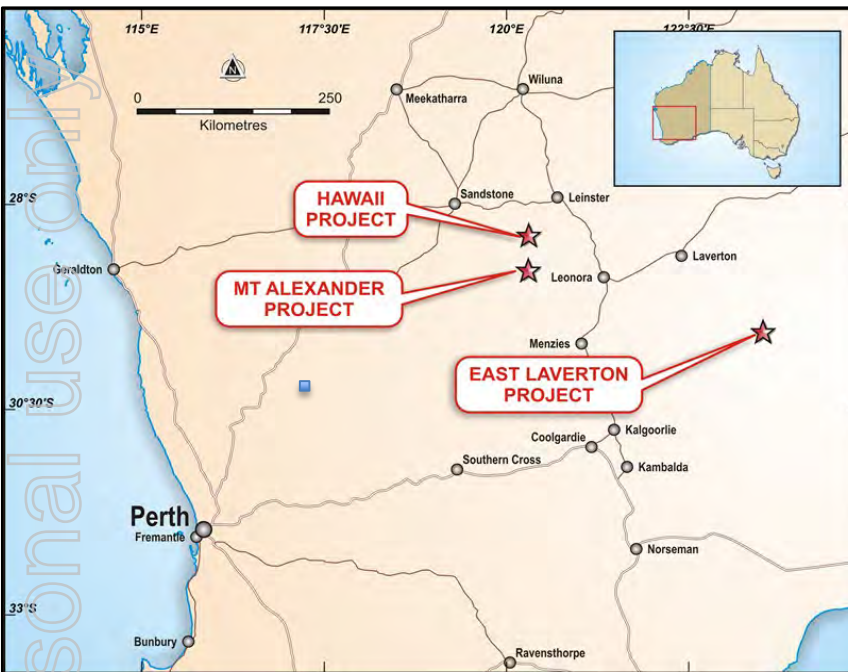
### Battery Metals Price Performance Since Start of 2018



# High-Grade Discovery at Mt Alexander



# World Class Address



## Favourable Location:

- Located S-SW of world class nickel and gold mines of the Agnew-Wiluna Belt
- Close to infrastructure, processing plants, mining workforce & service industry
- Suitable and reliable jurisdiction

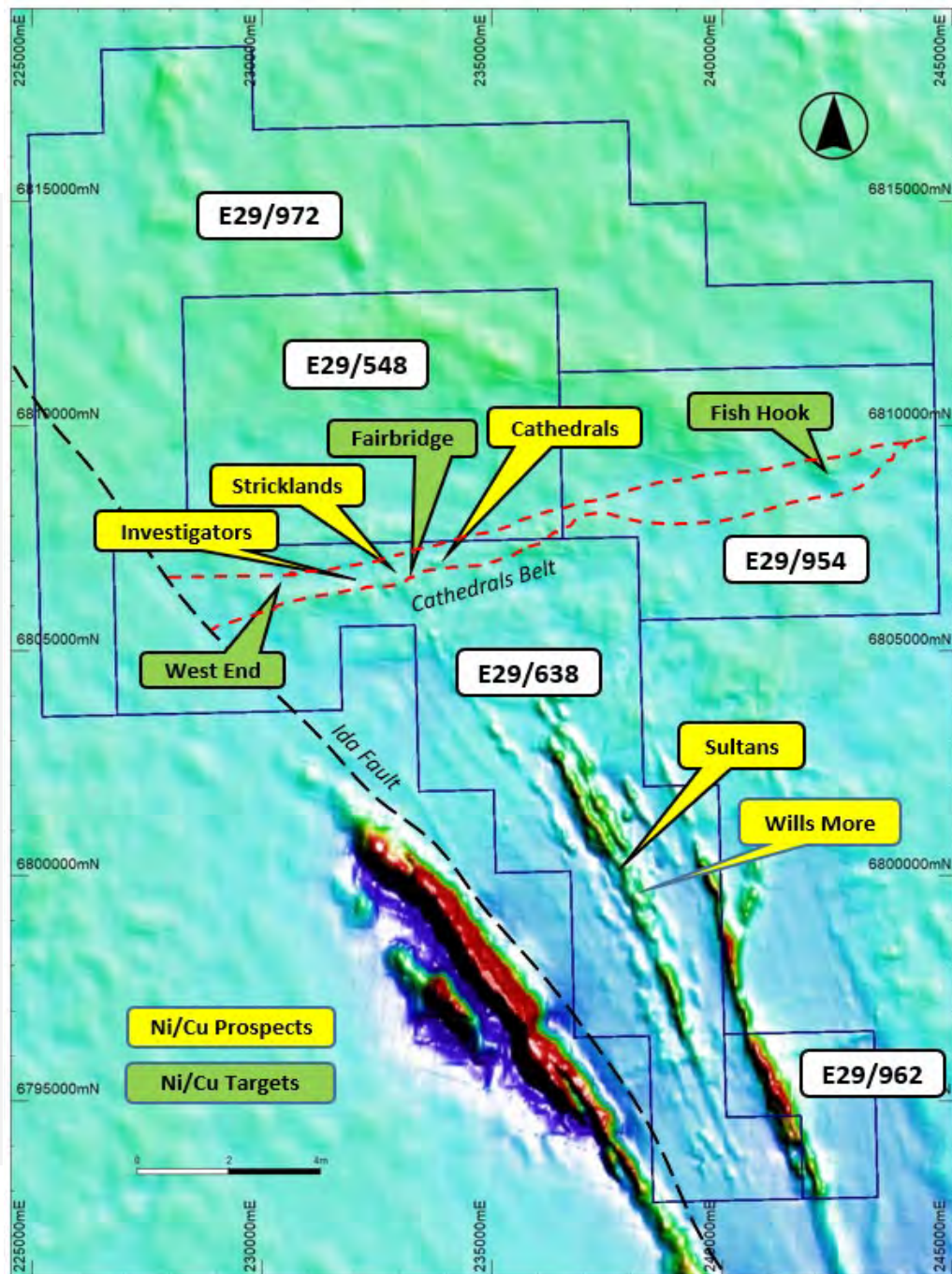
*The Cathedrals, Stricklands and Investigators Prospects are located on E29/638, which is held in joint venture by Western Areas Limited (25%) and St George (75%). St George is the Manager of the Project with Western Areas retaining a 25% non-contributing interest in the Project (in regard to E29/638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



# Large Mineral System

- **200 sq km tenement package with multiple discoveries and targets**
- **Potential to establish a nickel camp with several deposits**
- **Cathedrals Belt:**
  - **East-northeast oriented belt**
  - **Three discoveries – the Investigators, Stricklands and Cathedrals Prospects – within a 4.5km section of the Belt**
  - **Resouce definition drilling underway**
  - **New targets to be drilled in 2019**
- **Mt Alexander Belt:**
  - **North-northwest ultramafic belt with a strike of 7km**
  - **Widespread intersections of nickel sulphide mineralisation**
  - **Underexplored prospects including undrilled conductors**

*Right: Mt Alexander tenements against RTP magnetics with key prospects highlighted.*



# Exceptional Nickel-Copper Sulphide Discovery

## Cathedrals Belt Discovery at Shallow Depths:

- *Massive sulphide mineralisation 30m from surface*
- *Intrusive system with potential for significant mineralisation at depth*

## High Grade and Polymetallic:

- *Nickel sulphide plus copper, cobalt and PGEs (70% Pd, 30% Pt)*
- *Key high demand battery/EV metals*

## Extensive Strike of Mineralisation:

- *Nickel-copper sulphides occur over a 4.5km strike of the Cathedrals Belt with potential extensions to the east and west*
- *100% success rate in testing EM conductors in the Cathedrals Belt*

On right: Drill core from MAD56 that 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**





# Grade is King

## *Wide intersections of high-grade Ni-Cu-Co-PGEs*

### MAD71 (Stricklands Prospect):

17.45m @ 3.01%Ni, 1.31%Cu, 0.13%Co and 1.68g/t total PGEs from 37.45m, including  
5.3m @ 4.39%Ni, 1.45%Cu, 0.21%Co and 2.09g/t total PGEs from 39.3m; and  
2.02m @ 5.05%Ni, 2.01%Cu, 0.21%Co and 3.31g/t total PGEs from 50.6m.

### 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

### MAD126 (Investigators Prospect) – drill core on right:

7.86m @ 5.70%Ni, 2.11%Cu, 0.18%Co and 2.65g/t total PGEs from 184m, including  
5.25m @ 6.95%Ni, 2.67%Cu, 0.23%Co and 3.10g/t total PGEs from 185m

### MAD127 (Investigators Prospect):

8.49m @ 5.78%Ni, 2.64%Cu, 0.18%Co and 3.61g/t total PGEs from 183.9m, including  
6.39m @ 6.48%Ni, 2.77%Cu, 0.21%Co and 3.68g/t total PGEs from 184.42m

### MAD108 (Investigators Prospect):

8.4m @ 2%Ni, 0.96% Cu, 0.646% Co, 2.59g/t total PGEs from 199m, including  
1.37m @ 6.83% Ni, 2.88% Cu, 0.21% Co, 5.58g/t total PGEs from 206.03m

### *Significant vertical metres of metal*

- *High-grade massive sulphide intercepts plus halos of matrix, blebby and disseminated sulphides*
- *Potential for significant metal per vertical metre (TBC by resource drilling)*



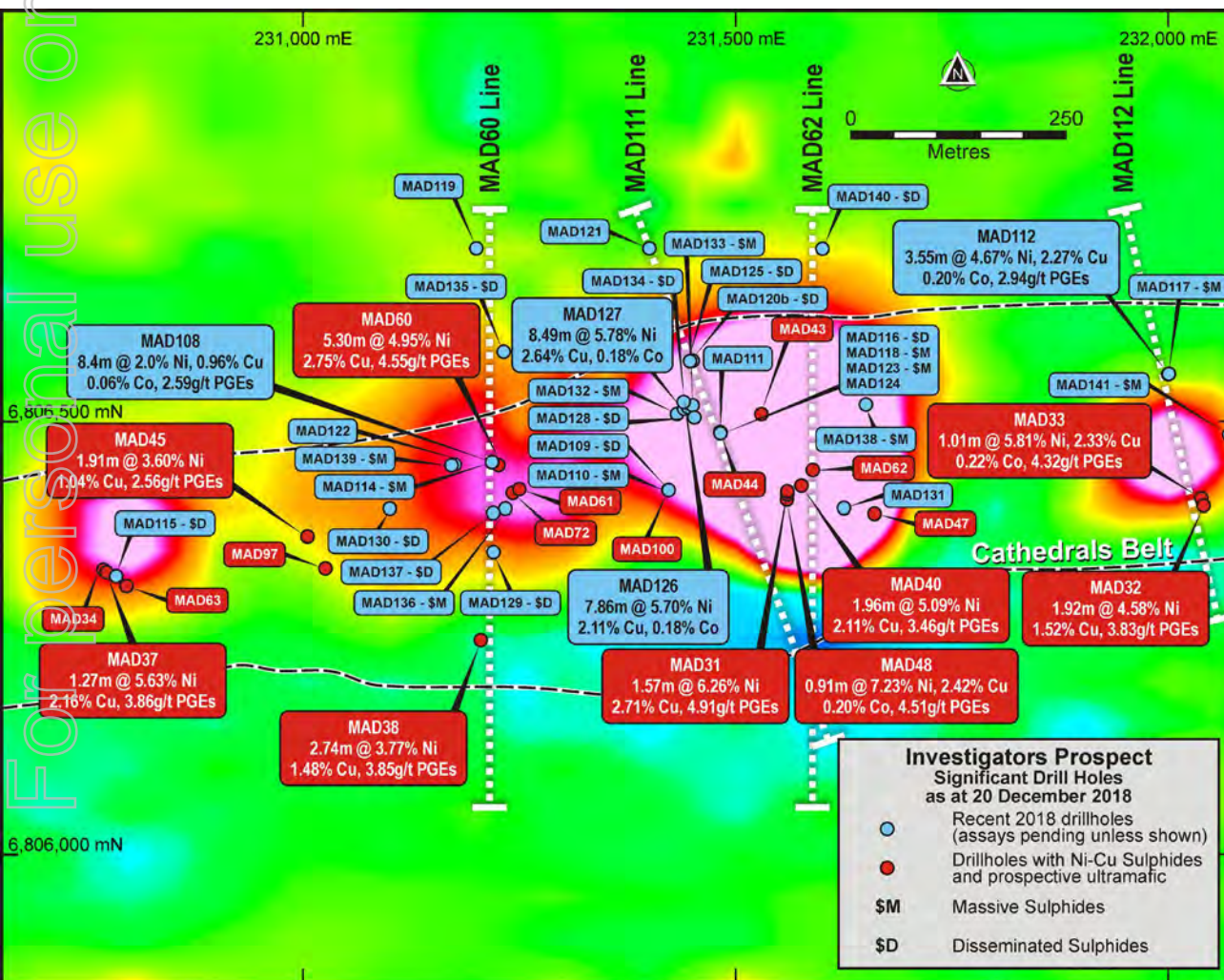


# Extensions of High-Grade Mineralisation

# Investigators Prospect

## Unlocking a Major Mineralised System

- High powered SAMSON electromagnetic (EM) survey identifies large areas of EM conductivity indicating potential for extensive sulphide mineralisation over an east-west strike of 1.5km



- Mineralised ultramafic unit dips 30 degrees to the north
- Drilling on three north-south lines – MAD60, MAD111 and MAD112 Lines – intersects additional massive Ni-Cu sulphides and new EM conductors in the northerly down dip direction
- Downhole EM surveys and drilling are used concurrently to scope out the extent of the high-grade mineralisation

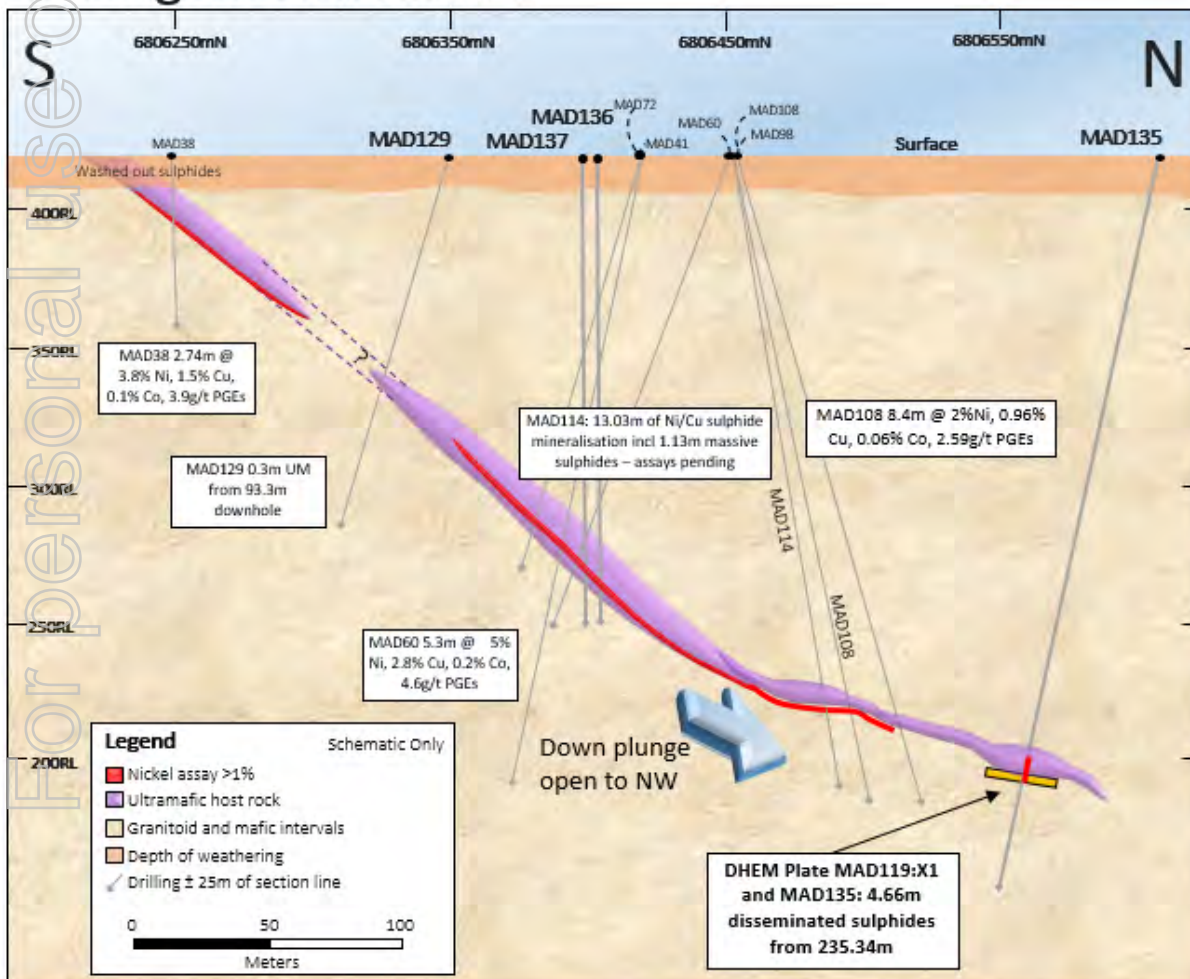
*Left: plan view of Investigators Prospect with drill hole collar locations (completed and planned) over the large SAMSON total field EM anomalies (red/pink colours). The three north-west lines which are the priority for current drilling are highlighted.*

# Plunge Increased by Latest Drilling

*Drilling and downhole EM surveys used concurrently to identify more high-grade mineralisation at depth*

Investigators

Cross-section 231225E



- **MAD60 Line (approx. 231225E) high-grade mineralisation starts at 30m below surface and has a plunge strike of 380m**
- **High-grade mineralisation footprint now covers a 1.5km east-west strike and a 380m northerly plunge**

## MAD60 :

**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**

## MAD108:

**8.4m @ 2%Ni, 0.96% Cu, 0.646% Co, 2.59g/t total PGEs from 199m, including 1.37m @ 6.83% Ni, 2.88% Cu, 0.21% Co, 5.58g/t total PGEs from 206.03m**

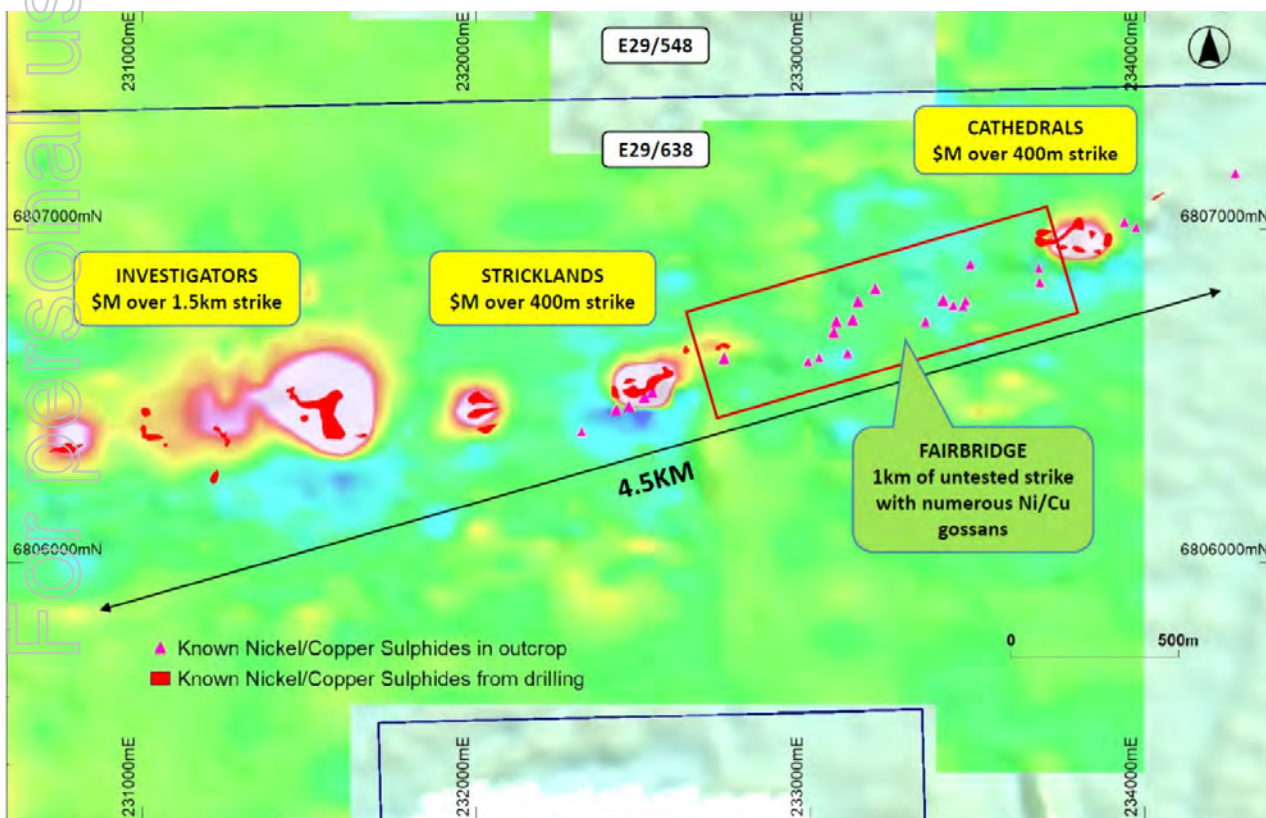
*Left: Schematic cross section of the MAD60 line (facing west) with down plunge of mineralisation over 320m and open to the north-west.*



# 2019 Drilling Commences

**Major RC drill programme underway – increased from +5,500m to +8,000m with a second drill rig mobilising to site**

- **Infill and extensional drilling planned for the Investigators Prospect to support resource definition**
- **First ever drilling of the interpreted mineralised contact at the Fairbridge Prospect where nickel-copper sulphide gossans have been identified over a 1km strike**
- **Drill targets at Fairbridge include several anomalies with geophysical signatures consistent with nickel sulphide mineralisation**



- **First ever drilling at the West End Prospect to test for the interpreted western extension of the highly mineralised Cathedrals Belt towards the Ida Fault**
- **First ever drilling by St George at the Mt Alexander Belt to follow-up massive nickel-copper sulphide intersections in previous exploration by BHP**

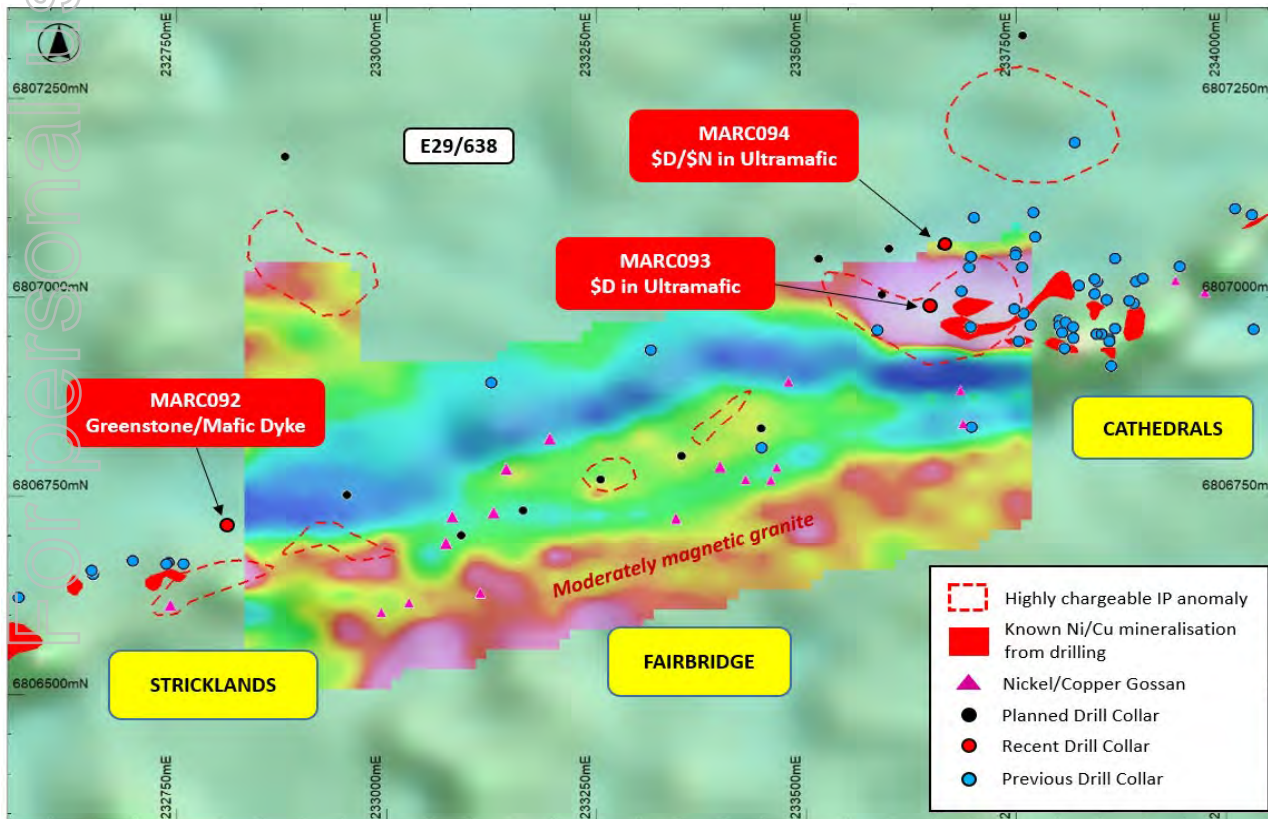
Left: The Cathedrals Belt over SAMSON total field EM data (strong SAMSON anomalies present as red/pink colours). The numerous gossans in the Fairbridge Prospect are highlighted.



# Fairbridge Prospect

## Highly Chargeable Anomalies

- Chargeable anomalies may be associated with sulphide gossans at surface and/or the massive nickel-copper sulphides discovered at the adjacent Cathedrals and Stricklands Prospects
- Early results confirm nickel sulphide mineralisation in ultramafic:
  - MARC093 – 7m of disseminated nickel sulphides in ultramafic from 60m downhole
  - MARC094 - 5m of disseminated/blebby nickel sulphides from 90m downhole, and then another 4m of coarse nickel sulphides – including network textured and large blebby sulphides – from 197m downhole



- Interim results demonstrate that the mineralised ultramafic dips to the north, with nickel sulphide mineralisation increasing at depth.
- Significantly, a large chargeable anomaly has been modelled to the north of MARC094, at a vertical depth from surface of approximately 250m and will be drilled in the current programme.

*Left: map of the Fairbridge Prospect highlighting new geophysical targets as well as planned and completed drill holes (set against X component Channel 28 MMR data overlaying RTP magnetics).*

# Mt Alexander Belt

➤ **Mt Alexander Belt is north-northwest trending with a strike of 7km**

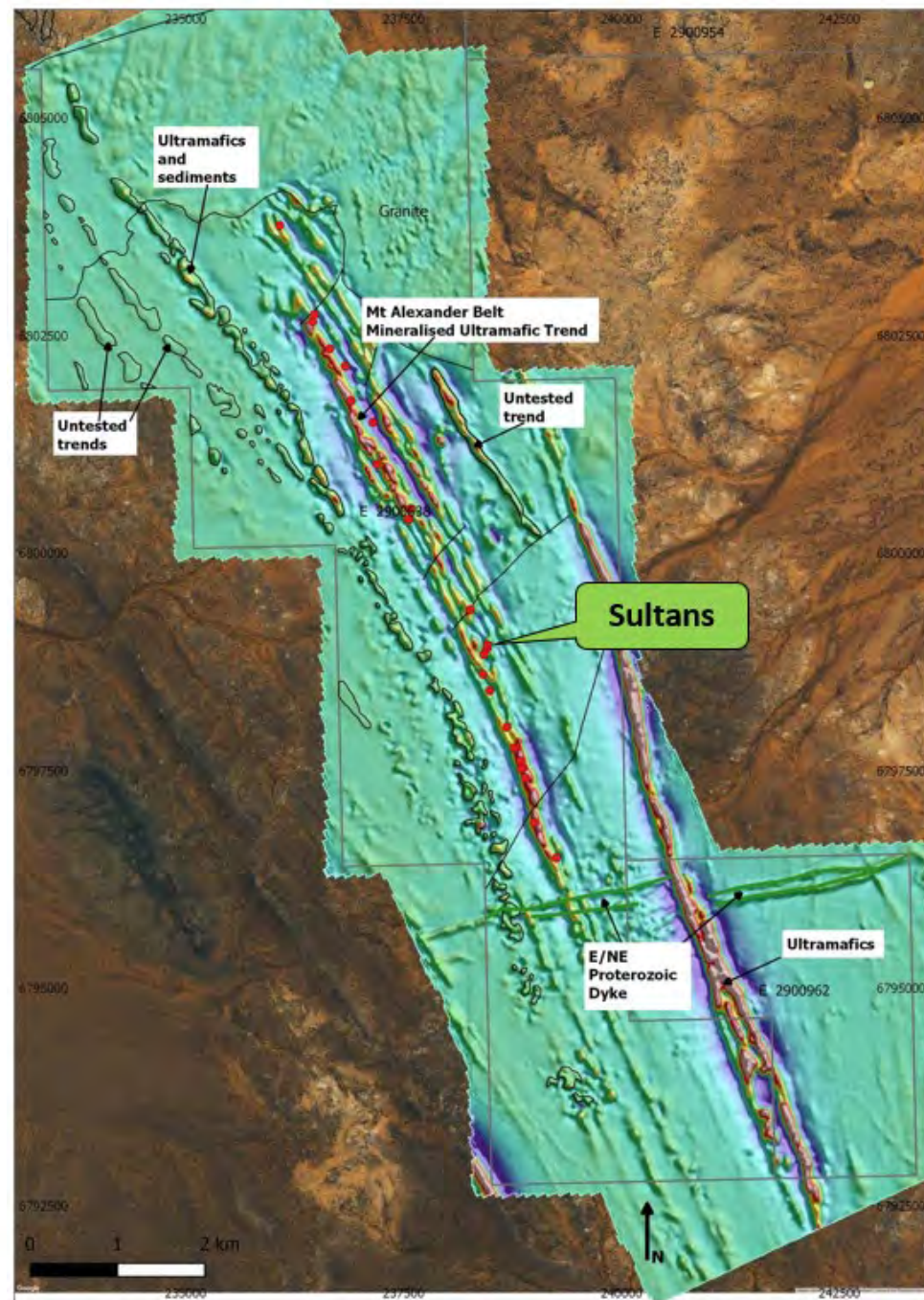
➤ **Historical drilling has intersected widespread nickel sulphides including massive sulphides**

➤ **The priority area on the Mt Alexander Belt is the Sultans Prospect where two drill holes have intersected massive sulphides that returned assays of:**

- **MARC40 – 2m @ 2.14%Ni from 64m**
- **MAD1 – 80cm @ 2.85%Ni, 0.13% Cu and 1 g/t PGEs from 115.4m**

➤ **A DHEM conductor was detected down-dip from the high-grade intersections but never drill tested. It will be drilled by St George in the upcoming RC programme.**

Right: new high resolution magnetic data (RTP 1VD) acquired by St George for the southern portion of E29/638 set against an airphoto of the surrounding ground. The new data clearly recognises the north-northwest Mt Alexander Belt and a series of weak-moderate magnetic sequences that are parallel to the west and east of the mineralised ultramafic trend (drill holes with NiS shown in red).





# Project Development

# Metallurgical Testwork

## *High Recoveries from Ore:*

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

## *Clean Concentrate:*

- No deleterious elements like MgO, talc or arsenic

## *Standard Flotation:*

- Separate nickel and copper concentrates produced by standard flotation process (**on right: copper being floated in 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: IGO ASX Release dated 14 December 2015



# Opportunity for Low Cost/ High Margin Project

*Key project features support favourable project economics which will be assessed by scoping/feasibility studies*

## Shallow Mineralisation:

- *Low cost drilling/low cost potential mining*

## Existing Infrastructure:

- *Established mining centre*
- *Close to roads, power and workforce*

## High Value Concentrate:

- *High grade Ni, Cu plus credits for Co, PGEs*
- *Amenable to blending with lower grade ore*

The location and quality of the Mt Alexander Project presents:

- *Multiple potential development and processing options (subject to scoping/feasibility studies)*
- *Strategic value and corporate M&A*



*Right: 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*

# 2019 – Growth Initiatives

## *Building a Resource Inventory*

### *Resource Definition:*

- Continue extensional and infill drilling to support delineation of a resource estimate

### *Review Mining Potential:*

- Initiate studies to assess the potential for a low cost/high margin mining operation at Mt Alexander

### *Regional Exploration:*

- Escalate exploration of unexplored and underexplored areas to deliver more discoveries and increase the potential resource base

### *Maximise Returns to Shareholders:*

- Grow the company with minimal dilution to shareholders and maximum leverage to the rising nickel price

## *Positioned for a Pivotal Year in 2019*

Right: Diamond drilling at Mt Alexander





*St George:*  
*Creating Shareholder Value through Exploration Success*

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***Photo: Diamond drilling  
at Mt Alexander for St  
George by DDH1 Drilling***

## 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 Dave O'Neill, a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy. Mr O'Neill is employed by St George Mining Limited to provide technical advice on mineral projects and holds performance rights in the Company.

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):

- 4 April 2018 *Nickel-Copper Sulphide Drilling at Mt Alexander – Update*
- 11 April 2018 *Further Nickel-Copper Sulphides Intersected at Mt Alexander*
- 19 May 2018 *Nickel-Copper Sulphide Drilling at Mt Alexander – Update*
- 4 June 2018 *Assays Confirm High Grades at Mt Alexander*
- 21 June 2018 *Assays Confirm Further High Grades at Mt Alexander*
- 23 July 2018 *High-Grade Nickel-Copper Sulphides in First Drill Hole*
- 15 August 2018 *Further High-Grade Nickel-Copper Sulphides*
- 24 August 2018 *Mt Alexander Continues to Deliver Outstanding Results*
- 5 September 2018 *Mt Alexander – Drilling Update*
- 18 September 2018 *More Strong Results at Mt Alexander*
- 3 October 2018 *Downhole EM Surveys Light Up Strong Conductors*
- 19 October 2018 *Extension to High-Grade Mineralisation at Mt Alexander*
- 25 October 2018 *Best Ever Intercept At Investigators*
- 1 November 2018 *More Massive Nickel-Copper Sulphides at Investigators*
- 20 November 2018 *Further Extensions to Nickel-Copper Sulphides At Mt Alexander*
- 30 November 2018 *Assays Confirm Best Ever Intercepts*
- 20 December 2018 *Strong Results Continue at Mt Alexander*
- 31 January 2019 *More Outstanding Nickel-Copper Sulphide targets*
- 12 February 2019 *St George Ready to Drill*
- 7 March 2019 *Nickel-Copper Sulphide Drilling at Mt Alexander*
- 18 March 2019 *Drilling at Mt Alexander – Strong Results Continue*

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.