BELL POTTER

Speculative
See key risks on page 7. Speculative securities may not be suitable for Retail clients.

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St George Mining Ltd (SGQ)

Thick, shallow Stricklands nickel-copper intersection aids nickel-in-granite theory

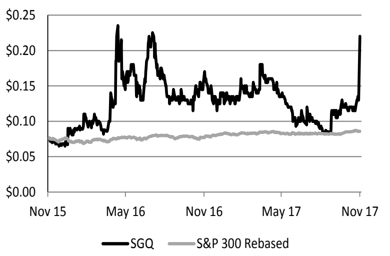
Recommendation
Buy (unchanged)
Price
$0.225
Valuation
$0.30 (previously $0.26)
Risk
Speculative

Expected Return	
Capital growth	33%
Dividend yield	0%
Total expected return	33%
Company Data & Ratios	
Enterprise value	$53m
Market cap	$56m
Issued capital	250.4m
Free float	94%
Avg. daily val. (52wk)	$122,000
12 month price range	$0.078 - $0.24
GICS sector	Materials

Price Performance

	(1m)	(3m)	(12m)
Price (A$)	0.125	0.10	0.145
Absolute (%)	76.0	124.5	51.7
Rel market (%)	75.0	121.1	40.1

Absolute Price



SOURCE: IRESS

Stricklands intercept confirms the strength of mineralisation

The drilling of thick nickel-copper mineralisation at shallow depth at the Stricklands Prospect within the Cathedrals Belt of the Mt Alexander Project of St George Mining (SGQ) in the Laverton district of Western Australia confirms the mineralisation is persistent. The intersection looks to be the best one yet (based on thickness and preliminary hand-held XRF results) and it does much to confirm SGQ's belief that Cathedrals is a major new sulphide nickel discovery in an unusual geological setting in disrupted ultramafics intruded by extensive granite. The company has reported that hole MAD71, which was testing a major Samson electromagnetic (EM) anomaly, contains a 17-metre thick intersection containing multiple individual zones of massive, matrix, blebby, disseminated and stringer nickel sulphide mineralisation in a thicker zone of ultramafic from a down hole depth of only 37.5m, which contains over **10 cumulative metres of massive sulphides in five zones that SGQ reports averaged 5.5% nickel and 2.1% copper based on hand-held XRF readings**. The MAD71 mineralisation seems to be less obviously recrystallised than the generally thinner zones of mineralisation in the other Cathedrals' intersections but it is still in an approximately east-west striking channel structure that could be representative of a Raglan-style deposit. Based on initial logging, the downhole widths are interpreted to be close to true widths. The company believes the mineralisation is open to the north and west, based on the strong EM anomaly. Follow-up drilling is planned to test this.

EM continues to be a major guiding influence

Geophysics has played an integral part in the exploration in the Cathedrals Belt, with SGQ successfully targeting EM anomalies with a very high success rate, intersecting significant zones of shallow massive nickel sulphides over about 3.5km of strike in an approximately east-west direction. Although the recent EM surveys using the Samson technology have identified multiple new, deeper conductors, initial drill testing hasn't found nickel sulphides, but it has shown that there is a deeper zone of ultramafics.

Nickel price recovery stalls for time being as stocks stay high

The nickel price has retraced from its recent peak of US$5.90/lb in early November 2017 as nickel stockpiles are still at very high levels in absolute terms and relative to other base metals due to the high lateritic nickel output going into Asian nickel pig iron. Nickel is a key ingredient in electric vehicles (EVs), but it has to be in the pure form for those EV applications, not as an alloy like pig iron, so we still see the nickel price for Class I nickel recovering to around US$7/lb over the next few years from that demand.

Investment thesis – Speculative Buy, valuation $0.30/sh

The latest drilling of EM conductors at the Stricklands Prospect has discovered a major new zone of nickel sulphide mineralisation that is in a different (Raglan-like) geological setting compared to most WA nickel sulphide deposits and is associated with granite intrusions. We have raised our equity diluted valuation of SGQ by 15% to $0.30 per share based on the MAD71 results and SGQ's current share price, capital and cash. The company's focus is clearly on nickel now and the gold targets in its prospective tenements will get due attention in future. Speculative Buy recommendation retained.

Stricklands contributes strongly

Latest Strickland's mineralisation shows it survives in the granite

The drilling of thick nickel-copper mineralisation at shallow depth at the Stricklands Prospect within the Cathedrals Belt of the Mt Alexander Project (Figure 1) of St George Mining (SGQ) in the Laverton district of Western Australia confirms the mineralisation is persistent. While the previous drilling at Stricklands had intersected massive nickel-copper sulphide mineralisation, it was mostly fairly thin. The latest intersection looks to be the best one in all the drilling that has been done on the Cathedrals Belt to date (based on thickness and preliminary hand-held XRF results) and it does much to confirm the company's belief that Cathedrals is a substantial new sulphide nickel discovery albeit it is in an unusual geological setting (striking roughly east-west) that is in disrupted ultramafics that have been intruded by extensive granite. The company has reported that hole MAD71, which was testing a major Samson electromagnetic (EM) anomaly (Figure 2), contains a 17-metre thick intersection containing multiple individual zones of massive, matrix, blebby, disseminated and stringer nickel sulphide mineralisation in a thicker zone of ultramafic than most other nickel sulphide occurrences at Cathedrals from a down hole depth of only 37.5m. The intersection contains over **10 cumulative metres of massive nickel-copper sulphides in five zones (Figure 3 over page) that SGQ reports averaged 5.5% nickel and 2.1% copper based on hand-held XRF readings**. The MAD71 mineralisation seems to be less obviously recrystallised than the generally thinner zones of mineralisation in the other Cathedrals' intersections (Figure 2) but it is still in an approximately east-west striking channel structure that could be representative of a Raglan-style deposit. Based on initial logging, the downhole widths are interpreted to be close to true widths. The company believes the mineralisation is open to the north and west, based on the strong EM anomaly. Follow-up drilling is planned to test the indicative extensions and is due to start after down hole EM (DHEM) logging of MAD71 has been completed.

Figure 1 - Map of SGQ's Mt Alexander Project

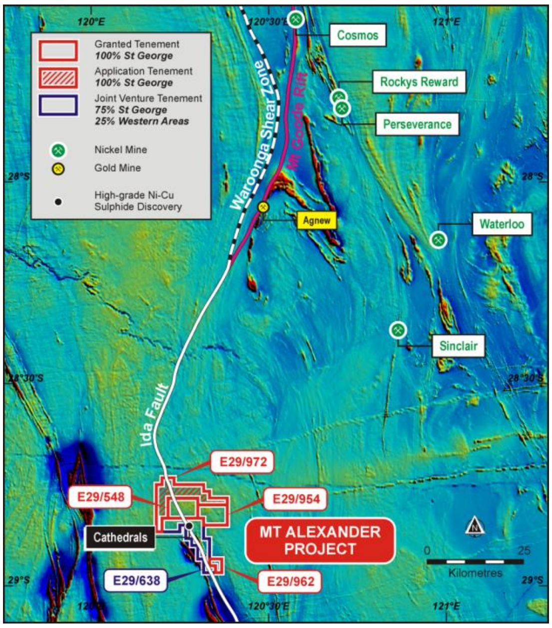
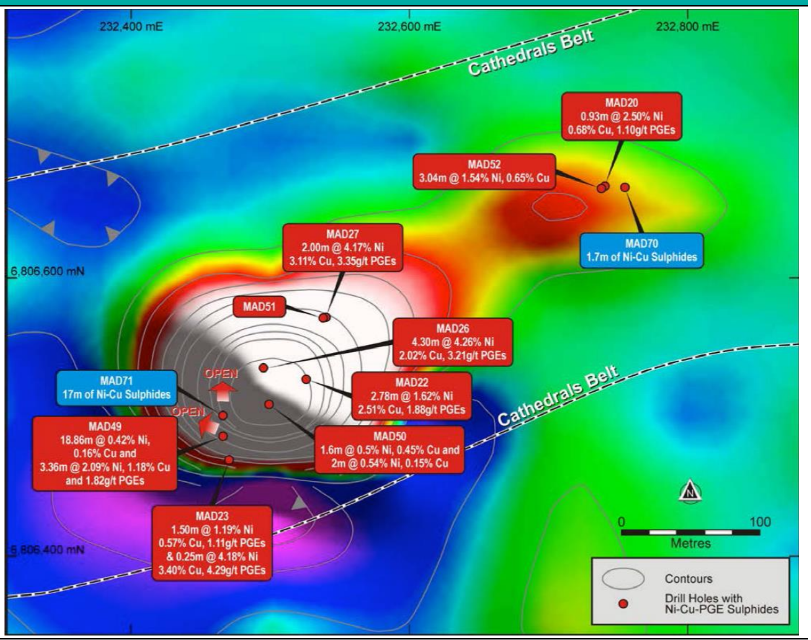


Figure 2 – EM anomaly at the Stricklands Prospect with location of MAD71



DHEM logging being done to look for more extensive and deeper mineralisation

Hole MAD71 was continued for nearly 200m below the base of the nickel-copper mineralisation because the EM anomaly was interpreted to include a deeper conductor.

Although no sulphide mineralisation appears to have been intersected at depth, the hole will enable the DHEM surveying to get a good look for additional conductors and may provide some refinement on the possible extent and direction of the high grade mineralisation intersected from 37.5m. As with previous DHEM surveys at Cathedrals, they have not always been of much assistance to the geological interpretation of massive sulphides because of the extreme strength of the sulphide conductors in the mineralisation. Although not measured by the hand held XRF, the mineralisation is expected to contain significant cobalt and Platinum Group Metals, although these elements may be at slightly lower levels than seen in other Cathedrals mineralisation because of the relatively less recrystallized nature of the MAD71 mineralisation relative to the other mineralisation.

Figure 3 – Intersection summary of nickel-copper mineralisation in hole MAD71

Thickness	From	To	Material	Spot XRF
1.3m	37.5	38.8	**Massive & matrix sulphides**	2 - 4% Ni , 0.6 - 4% Cu
0.5m	38.8	39.3	Clay zone	
5.2m	39.3	44.5	**Massive sulphide**	2 - 15% Ni, 0.1 - 7% Cu
2.0m	44.5	46.5	Weak to moderate stringer and brecciated sulphides	0.3 - 1% Ni, 0.1 - 0.7% Cu
1.0m	46.5	47.5	**Massive sulphide**	4.5 - 6% Ni, 0.2 - 1% Cu
3.0m	47.5	50.5	Moderate disseminated and brecciated sulphides	0.15 - 1.2% Ni, 0.1 - 2% Cu
2.1m	50.5	52.6	**Massive sulphide**	3 - 7% Ni, 1.2 - 4% Cu
1.8m	52.6	54.4	Blebby sulphides	0.15 - 0.45% Ni, 0.02 -0.12% Cu
0.5m	54.4	54.9	**Massive sulphide**	6 - 20% Ni, 1 - 11% Cu

SOURCE: ST GEORGE MINING LTD

EM continues to be a major guiding influence

Geophysics has played an integral part in the exploration in the Cathedrals Belt, with SGQ successfully targeting EM anomalies with a very high success rate, intersecting significant zones of shallow massive nickel sulphides over about 3.5km of strike in an approximately east-west direction. Although the recent EM surveys using the Samson technology have identified multiple new, deeper conductors, initial drill testing hasn't found nickel sulphides at depth, but it has shown that there is a deeper zone of ultramafics. The company continues to evaluate these deeper EM targets and continues to refine its geophysical interpretations, based on additional drilling results from across the Cathedrals Belt.

Valuation increased 15% on updated data

Our valuation of SGQ (Table 2) has been increased by 15% as a result of the following:

- Slight increase in valuation of the Cathedrals Project to reflect the MAD71 results;
- Using the current share price of $0.225, which results in significantly less dilution for the assumed additional capital to be raised over the next year (compared to the share price of $0.10 previously);
- Updated share capital to incorporate the 24.7m bonus options issued in September 2017; and
- Updated net cash balance of $3.2m at 30 October 2017 following receipt of a $1.8m R & D refund.

Our valuation (Table 2) is equity adjusted to take into consideration the likely impact of additional equity that we have assumed that SGQ raises in FY18 (Table 1). We have conservatively assumed that this raising will be done at the same share price as the current share price, even though we would actually expect the development studies such as ongoing exploration success at Mt Alexander and the company's other exploration projects to enhance the value of these projects. A successfully de-risked project provides the potential for a higher share price over time.

Table 1 - Forecast additional equity to be raised over the next year

Year to June	2018e
Net amount to be raised[1] ($ m)	6.7
Share price assumed ($)	0.225
Number of shares to be issued (m)	31.1
Total number of shares on issue at year end(m)	281.5

SOURCE: BELL POTTER SECURITIES NOTE 1. AFTER CAPITAL RAISING COSTS

Our SGQ valuation (Table 2) is dominated by the estimate for the Mt Alexander Project. Our Mt Alexander Project valuation is based on a risk-weighted NPV methodology related to a potential toll-treatment based mining operation. Our valuations for SGQ's other exploration assets in WA are based on our estimates, which are related to anomaly size and features, and geological characteristics.

Our valuation for SGQ's mineral assets and total company is $87m and $94m respectively. The valuation of the total company is equivalent to $0.30 per share (Table2).

Table 2 - Summary valuations for SGQ

Assets	Valuation	
	$ m[1]	$/share[1,2]
Project – Mt Alexander (75% in E29/638; 100% in all others)[3]	79	0.26
- East Laverton (100%)	5	0.01
- Hawaii (100%)	2	0.01
- Other mineral interests (100%)	1	0.00
- Total mineral interests	87	0.28
Corporate	(10)	(0.03)
Enterprise Value	**77**	**0.25**
Net Cash[3]	17	0.05
TOTAL ASSETS	**94**	**0.30**

SOURCE: BELL POTTER SECURITIES ESTIMATES

NOTES: 1. MAY NOT ADD DUE TO ROUNDING AND DILUTION EFFECTS
2. BASED ON DILUTIVE CAPITAL OF 309.6M SHARES (INCLUDES EXERCISE OF 28.2M OPTIONS THAT ARE IN THE MONEY AT THE VALUATION AND FROM ASSUMED EQUITY RAISING)
3. BASED ON ESTIMATED CASH BALANCE AT 30 OCTOBER 2017; ALSO INCLUDES CASH FROM EXERCISE OF OPTIONS AND FROM ASSUMED EQUITY RAISING

Nickel price rebound slips on high stocks

The nickel price recovery that saw the silvery metal at a recent peak of US$5.90/lb in early November 2017 (Figure 4) has faltered as the market has become concerned again that nickel stockpiles are still at very high levels in absolute terms and relative to other base metals due to the high lateritic nickel output going into Asian nickel pig iron. The nickel price is currently around US$5.22/lb

Nickel is a key ingredient in electric vehicles (EVs), but it has to be in the pure form for those EV applications, not as an alloy like pig iron, so we still see the nickel price for Class I nickel recovering to around US$7/lb over the next few years from that demand.

Figure 4 - Chart of LME nickel price (in US dollars)

SOURCE: IRESS

St George Mining Ltd (SGQ)

Company description

SGQ is a nickel and gold exploration company which listed in November 2010. It has three principal projects in the northern part of the Eastern Goldfields in the Yilgarn Craton of Western Australia. The company acquired a 75% interest (and is the manager of) the joint venture with midcap nickel producer WSA in the central tenement of the Mt Alexander Project near Leonora in January 2016 containing the east-striking Cathedrals Belt. BHP discovered shallow high grade massive nickel-copper-PGM sulphides in the Cathedrals Belt in 2008 but it failed to capitalise on that after a change in corporate strategy stymied exploration and led them to sell their interest to SGQ in 2016, leaving it to SGQ to drill multiple occurrences of similar mineralisation since December 2016 based on successful EM targeting that has disclosed that high grade shallow nickel-copper-PGMs occurs over a strike length of 3.5km at three main prospects – Investigators, Stricklands and Cathedrals. SGQ also has 100% of four adjoining tenements, giving it a controlling interest in about 250km^2 that makes up the Mt Alexander Project and includes the north-north-west striking Mt Alexander Greenstone Belt that also contains nickel sulphide mineralisation. SGQ owns 100% of the East Laverton Project located about 150km south-east of Laverton, which is prospective for nickel and gold and is currently undergoing a major drilling program. The company also owns 100% of the Hawaii Project, which contains the Mt Ida Fault and is located about 25km north of the Mt Alexander Project.

Investment Thesis – Speculative Buy, Valuation $0.30/sh (prev. $0.26)

The latest drilling of EM conductors at the Stricklands Prospect has discovered a major new zone of nickel sulphide mineralisation that is in a different (Raglan-like) geological setting compared to most WA nickel sulphide deposits and is associated with granite intrusions. We have raised our equity diluted valuation of SGQ by 15% to $0.30 per share based on the MAD71 results and SGQ’s current share price, capital and cash. The company’s focus is clearly on nickel now and the gold targets in its prospective tenements will get due attention in future. Speculative Buy recommendation retained.

Valuation

Our valuation of SGQ is based on a sum-of-the-parts set of valuations for the mineral assets of the company along with an estimate for corporate costs and a net cash component. The Mt Alexander Project valuation is based on a heavily risked, discounted cash flow estimate of a potential modest scale mining operation centred on the Cathedrals mineralisation that is trucked to a nearby processing plant for toll milling. SGQ’s other mineral assets have been ascribed estimated valuations related to their geological characteristics and potential to host economically significant mineralisation. The net cash component of the valuation is the sum of the current net cash position plus cash from the dilutive exercise of options that are in-the-money at the valuation and net cash from an assumed equity raising within the next year that is assumed to be done at the current share price. The valuation per share is determined by dividing the above determined total valuation by the total number of shares made up of the currently issued shares plus the assumed dilutive options and the shares from the assumed equity raising.

Risks

The key risks for resources investments include, but are not limited to:

- **Commodity price volatility:** Notwithstanding the relatively liquid nature of base and precious metals markets, they can be subject to wide fluctuations in price, particularly during more difficult economic times or major world events. Associated with metal price volatility are potentially different metal prices and foreign exchange rate outcomes to our forecasts.
- **Lack of exploration success:** The difficulty of exploring in the Yilgarn district of WA, where SGQ has its areas, is related to the fact that the region has variable sand, sandstone and/or laterite cover that overlies the geologically complex Archaean bedrock which hosts mineralisation. This means that there is often little or no outcrop and further complexity comes from the nature of the Archaean bedrock, which has suffered variable alteration and weathering and may contain greater than expected geological complexities that may be difficult to resolve without extensive drilling programs and may inhibit the definition of adequate resources and reserves.
- **Lack of funding:** Exploration companies generally do not have a source of revenue and so they require access to funding to enable them to carry out adequate exploration and related development activities in order to continue to develop their operations.
- **Metallurgical issues:** Preliminary metallurgical test work using standard grinding and flotation techniques on samples of massive nickel-copper sulphide mineralisation from the Mt Alexander Project has given very positive outcomes with encouragingly very high nickel and copper recovery results and with no deleterious elements. Subsequent more detailed metallurgical testwork may identify adverse metallurgical characteristics that could need more complicated and expensive processing requirements.
- **Regulatory and social licence approvals:** SGQ is not yet at the permitting stage for any of its projects yet. While there are currently no indications there would be any difficulties completing the necessary regulatory and social licence approvals processes to enable a suitable potential mining and less likely to be needed processing operation to be established (given availability of suitable nearby plants), prolonged delays can sometimes result from unforeseen and relatively minor adverse regulatory issues and from the need to progress the related negotiations in a very careful and sensitive manner. Various stages of the regulatory approvals process can sometimes suffer unforeseen delays related to changes in personnel involved or from the need to resolve differences in interpretations. There may be some tenements in which the company has an interest or may acquire an interest in future which may contain areas over which legitimate common law native title rights of Aboriginal Australians exist. If native title rights do exist, the ability of the company to gain access to such tenements (through obtaining the consent of any relevant landowners) and to progress from the exploration phase to the development and mining phases of operations may be affected.
- **Weather impacts:** Cost overruns or operational delays can be caused by severe weather events because site access may be restricted due to the unsealed nature of roads and airstrips in the remote regions in which the company operates.
- **Inappropriate acquisitions:** The acquisition of other assets can divert management effort from the current focus and may yield inadequate returns.

Recommendation structure

Buy: Expect >15% total return on a 12 month view. For stocks regarded as 'Speculative' a return of >30% is expected.

Hold: Expect total return between -5% and 15% on a 12 month view

Sell: Expect <-5% total return on a 12 month view

Speculative Investments are either start-up enterprises with nil or only prospective operations or recently commenced operations with only forecast cash flows, or companies that have commenced operations or have been in operation for some time but have only forecast cash flows and/or a stressed balance sheet.

Such investments may carry an exceptionally high level of capital risk and volatility of returns.

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Exploration Risk Warning:

The stocks of resource companies without revenue streams from product sales should always be regarded as speculative in character. Since most exploration companies fit this description, the speculative designation applies to all exploration stocks. The fact that the intellectual property base of an exploration company lies in science and is generally only accessible to the layman in a limited summary form adds further to the riskiness with which investments in exploration companies ought to be regarded. Stocks with 'Speculative' designation are prone to high volatility in share price movements. Exploration and regulatory risks are inherent in exploration stocks. Exploration companies engage in exploration programs that usually have multiple phases to them where positive results at some stages are not indicative of ultimate exploration success and even after exploration success, there is often insufficient economic justification to warrant development of an extractive operation and there is still significant risk that even a development project with favourable economic parameters and forecast outcomes may fail to achieve those outcomes. Investors are advised to be cognisant of these risks before buying such a stock including **St George Mining Ltd** (of which a list of specific risks is highlighted within).

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