

# **EQUITY RESEARCH**



#### 28 AUGUST 2014

SOLOMON ISLANDS, VIETNAM, AUSTRALIA (QLD)

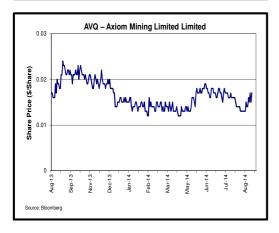
NICKEL-COBALT, GOLD, SILVER, BASE METALS

ADVANCED EXPLORATION

**EXCHANGE: ASX:AVQ** 

### **CAPITAL PROFILE**

Share price (A\$)		0.017	
52 week range (A\$/share)	0.025 to	0.012	
Number of shares (m)		3002.0	
Options and warrants (m)		584.0	
Convertible notes (A\$m) *		0.70	
Fully diluted * (m)		3627.2	
Market capitalisation (undiluted) (A\$m)	)	51.0	
Debt (A\$m) - Sep '14F		0.0	
Enterprise value (A\$m)		51.0	
Major shareholders: Drake Private Investm	ents (16.2%)	,	
Admark Investments P/L (3.6%), UBS Nominee	es (2.1%)		
Avg monthly volume (m)		209.0	
Cash (A\$m) - Sep '14F		0.5	
Price/Cash (x)		112.1	
Price/Book (x)		6.5	
Listed company options:		No	
* Con. notes convert at share trading price, A\$0.017 assumed.			



### **DIRECTORS**

Stephen Williams (Non Exec Chairman) Ryan Mount (CEO and Managing Director)

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## **AXIOM MINING LIMITED**

SHARE PRICE: A\$0.017

Axiom is approaching a defining moment in its history with the anticipated delivery of the judgement in September 2014 of the >3 year court battle with Japanese giant, Sumitomo Metal Mining, over ownership of potentially one of the world's largest nickel laterite deposits, located in the Solomon Islands. Axiom's legal case (aligned with local landowners) looks strong, and a victory over Sumitomo could open up an initial fast-track low-capex path to production of direct shipping laterite ore within 15-18 months. Furthermore, the company is also about to start drilling Porgerastyle epithermal gold targets at its West Guadalcanal Project. We anticipate a potential near-term doubling or tripling of the Axiom share price with a court victory over Sumitomo, with further upside from positive drilling results from the gold exploration.

#### **INVESTMENT POINTS**

- Judgement in the court battle over ownership of the large scale Isabel Nickel Project in the Solomon Islands should be handed down in September 2014.
- We estimate that the Japanese giant Sumitomo Metal Mining is spending millions challenging Axiom's 80% ownership of the project, clear indication that the project is of great significance to such a major company.
- Axiom has strategically aligned itself with the local landowners who have right of veto.
- Previous work (INCO, Kaiser Engineers) led to the establishment of an estimate of mineralisation (non JORC compliant) of 159mt @1.05% Ni and 0.06% Co (equivalent to 1.6mt of contained nickel) to a depth of only ~6 metres meaning that this deposit, if confirmed as a resource, ranks with some of the world's major tropical laterite resources.
- The timing is right the 1H14 banning of the export of unprocessed direct shipping ores (DSO) from Indonesia, a major global supplier, has resulted in a >30% surge in the nickel price and similarly stronger DSO prices.
- A ~2mtpa DSO operation would give Axiom a low capex (~A\$20-25m) fast track route to production, generating strong cashflow (est. >\$50mpa).
- Valuation yardstick: PSE listed Nickel Asia Corporation (~16mtpa Philippines DSO Ni laterite production) share price has soared in 2014 (up 160%) and it is currently capitalised at US\$140m per million tonnes of annual DSO sales.
- Axiom's West Guadalcanal Project, also in the Solomons, is throwing up some exciting results and an initial drilling program targeting Porgera-style epithermal gold targets is commencing this week.
- Portfolio includes gold exploration assets in Vietnam and N Queensland.
- Share price catalysts: a favourable resolution of the Sumitomo court case in Sep '14 and initial gold drilling results from West Guadalcanal (Oct '14).

### **EXPLORATION AND FINANCIAL FORECASTS**

Year End September	Jun-14a	Sep-14F	2013a	2014F	2015F
Exploration and evaluation (A\$m)	0.57	0.92	0.85	2.28	3.32
Corporate (A\$m)	0.50	0.60	1.42	1.89	2.70
Exploration/(Expl.+ Corporate) (%)	53	61	37	55	55
Funding duration at current burn (years)			0.1	0.3	-0.7
Shares on issue (pr end) (m shares)	3002.0	3018.0	2523.0	3002.0	3018.0
Drilling - RAB (m) *	0	0	0	0	20,000
Drilling - RC/Diamond (m) *	0	1,200	0	0	9,500
Capital raisings (A\$m)	3.7	0.8	3.8	11.4	0.8
Funding from JV partners (A\$m)	0	0	0	0	0
Cash (A\$m)	1.2	0.5	0.1	1.2	-4.0
Cash backing (Ac/share)	0.0	0.0	0.0	0.0	-0.1
Net asset backing (Ac/share)  * All drilling metres are RCR estimates.	0.3	0.3	0.2	0.3	0.2

### **KEY PROJECTS**

Project	Ownership		J۷	Target	Process	Project	
	/Option	Metal	Partner	Type	Route	Status	Location
Is abel Nickel Project *	80% *	Ni-Co	Landowners	laterite	DSO	Adv Expl	Sol. Isl.
West Guadalcanal	100%	Au-Ag	na	epithermal	na	Early Expl	Sol. Isl.
Quang Tri	72%	Au	SOE ^	porphyry	na	Early Expl	Vietnam
Quang Binh	63%	Au	SOE ^	porphyry	na	Early Expl	Vietnam
Cardross	100%	Cu-Au-Ag-Zn	na	porphyry	na	Mid Expl	Aus (Qld)
Minnamoolka	100%	Ni-Co	na	laterite	na	Early Expl	Aus (Qld)
Edenvale Uranium	100%	U₃O <sub>8</sub>	na	roll front	na	Early Expl	Aus (Qld)
* Isabel granted, subject to litgation. ^ SOE - State-Ow ned Entity							

### **COMPANY COMMENT**

Overview: AVQ listed on the ASX in Nov '06 with a Pacific Rim focus. Its initial focus was on gold and base metals exploration in relatively unexplored regions of North Queensland and the highly prospective Sepon region in Vietnam. Since 2010 its primary focus has shifted towards the Solomon Islands with success in 2011 in gaining a Prospecting Licence in the Isabel Nickel Project, now subject to current litigation. It also holds other prospective exploration ground near the Gold Ridge deposit on the Island of West Guadalcanal. RCR's MD Mr John Wilson undertook a site visit to the Solomon Islands in Aug '14. History of the Isabel Nickel Project: Isabel has been known about for over fifty years. International Nickel Company (INCO) discovered the deposit in 1956. INCO spent over US\$15m on the digging of over 4,000 bulk sampling test pits, along with over 1,500 auger drill holes and feasibility studies. From 1991 to 1993, Kaiser Engineers undertook further exploration (including test pits and testing of bulk samples) and outlined a (non-JORC compliant) historical mineralised zone estimate of 159mt averaging 1.045% Ni and 0.06% Co, over two separate deposits, to a depth of about 6 metres. Since then the project has been relatively un-touched. In 2010, Sumitomo was successful in an international tender conducted by the Solomon Islands Government for a Letter of Intent to develop the project, subject to agreement with landowners. However, AVQ was successful in 2011 in obtaining exploration rights and this resulted in AVQ's disputed ownership with Sumitomo.

Axiom's Strategy: AVQ has spent many years developing strong relationships with the customary landowners including forming a JV whereby the landowners have a 20% interest in the Isabel Nickel Project. The landowners have the right of veto in project development, so this is a crucial strategic advantage to AVQ. More broadly, AVQ has developed key relationships and demonstrated a strong commitment to social responsibility The CEO is based in the Solomon Islands. He has an "open door" policy which has put him close to the people, and this has helped smooth the way for the government and community support of all AVQ's projects in the Solomon Islands. AVQ's commitment to the Solomons through advancement of the West Guadalcanal Project demonstrates to the government that the company is investing in and developing projects elsewhere in the country, building goodwill which could help garner support for anticipated Isabel Nickel Project approvals.

Size and Significance of Isabel Nickel Project: Isabel is potentially a large tonnage world class nickel laterite deposit, based on the non-JORC historical estimate of mineralisation established by Kaiser Engineers. The chart on page 3 compares published resource and nickel grades of major tropical laterite deposits. The original 159mt historical mineralisation estimate that Kaiser Engineers produced was based on a surface resource of shallow limonitic-saprolitic material to an average depth of only ~6m. It is known that in the Isabel deposits, the saprolitic zone below the limonitic zone typically exhibits higher grades than the limonitic zone, more likely to average around 1.5% Ni - 2.0% Ni (based on limited sampling), plus cobalt credits. The higher grade saprolitic zone is likely to be at a depth of only a few metres deeper than the current defined mineralised zone, and could extend to a further 10-20m depth below it. In addition, there are significant further areas of the deposit that were not sampled by INCO or Kaiser in their resource definition work, due to land access issues. Another pointer to the quality of the potential resource is Sumitomo's pursuit to get hold of the project.

**Getting Isabel into Production:** Once the ownership issue is resolved, it is likely that AVQ will move as quickly as possible to

establish an initial ~2mtpa DSO operation. This could happen within 15-18 months. Project logistics are straightforward with deep-water channel access close to the deposit for shipping/barging. The potential resource spans two separate islands (San Isabel and San Jorge) with a deep water channel in between. No relocation of human settlements will be required. AVQ's immediate task will be to undertake further drilling of selected higher grade mineralised zones to confirm a modest initial mineable reserve (e.g. 10-20mt) on which a start-up DSO operation could be established. It will also need to address environmental permitting, application for and granting of a mining lease, contractual negotiations with customers and completion of an updated feasibility study. Progressive funding (with emphasis on loans from potential customers, World Bank etc rather than equity) to fund the preproduction activities will need to be sourced.

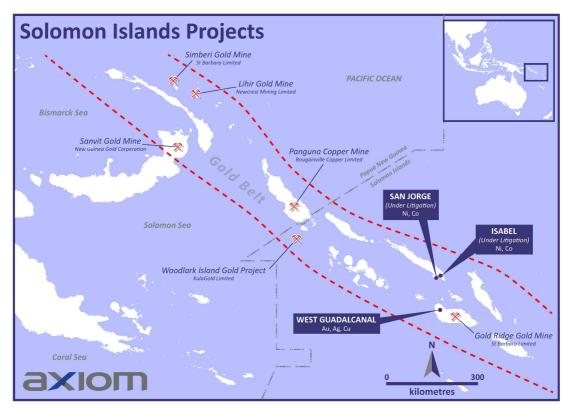
Looking Further Ahead: An initial ~2mtpa DSO operation is likely to be the first small step in AVQ's development of the potentially very large deposit. We think that it is likely AVQ will be looking at expanding production and moving towards further processing of the ore on site to increase the value-adding, probably with a major nickel producer as a partner. Cashflow from an initial DSO operation could drive this process.

West Guadalcanal Project (WGP): AVQ is about to commence initial scout drilling (two month, 2,500m program) of selected epithermal gold-silver targets at the WGP. The location has the right credentials - it is on a similar structure to St Barbara's (ASX:SBM) Gold Ridge operation in the East part of Guadalcanal, which is based on a 2.06 moz gold resource. After encouraging trenching results and completion of a high definition aeromag survey (see page 6), AVQ has defined a 1.5km long mineralised zone in the East of the Taho prospect which will be the focus of initial drilling, as well as possible drilling of higher grade trenches at central Taho. The AVQ team, including newly appointed Exploration Manager Donald Macnash who has extensive experience at Porgera, have selected targets modelled on Porgera style high-grade epithermal targets. This will be the first time the epithermal targets of this project will have been drill tested, previous operators focused on porphyry targets. We expect initial drill results in mid-October.

Vietnam and North Queensland Projects: Gold-focused exploration in Vietnam (potential for Sepon style mineralisation) and North Queensland (possible intrusion-related gold systems) will continue with a minimal level of activity due to the priority given to the Solomon Islands projects.

Investment Comment: So much now hinges on whether AVQ can confirm ownership of a quality company-making asset in a very buoyant nickel price environment. The company is confident it will secure a positive outcome from the court case, with its trump card being the support of traditional landowners who will have the right of veto over any project exponent. Although there is some expectation of court room success built into the current share price, our analysis suggests that a share price target some 2-3 times the current price would be achievable in the near term if AVQ secures a victory over Sumitomo. It will have majority ownership of a world class major asset and a low capex route to medium term production, with end-users in China desperate to secure DSO supply contracts.

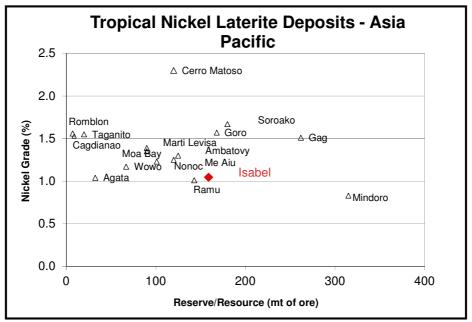
Map showing location of Axiom's Solomon Islands Projects



Source: Axiom Mining

Note: The Isabel Nickel Project (80% ownership by AVQ, subject to legal challenge) consists of two extensive shallow mineralised nickel laterite zones on the islands of Santa Isabel and San Jorge. AVQ also has a 100% stake in the West Guadalcanal gold-silver-copper epithermal exploration project, approximately 30km west of St Barbara's Gold Ridge Mine (ASX:SBM). It is in a prolific gold-copper belt as indicated by other operating mines on the map.

## Grade and tonnage comparison of major global nickel laterite deposits.

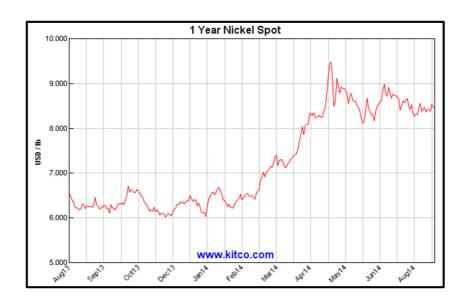


Source: RCR, Axiom Mining, company reports

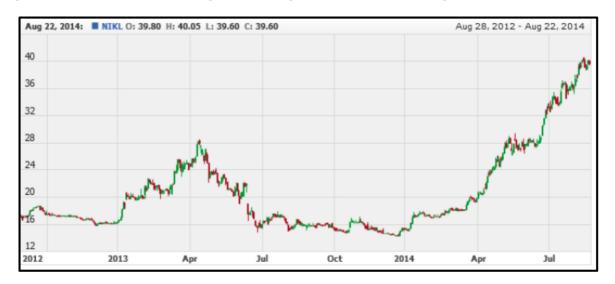
Note: "Isabel" on the chart above relates to the non-JORC compliant historical estimate of mineralisation established by Kaiser Engineers in 1993. No JORC-compliant resource or reserves have yet been established by AVQ.

#### THE NICKEL PRICE AND THE EFFECT ON A LISTED DSO PRODUCER

The Indonesian ban on the export of unprocessed DSO laterites has been the prime factor in a >30% rise in the nickel price since the start of 2014. **Indonesia** was the biggest global supplier of these ores to China. **DSO** prices have risen strongly as a result, and are predicted to rise further in 4Q14 as **Chinese stockpiles are** depleted.



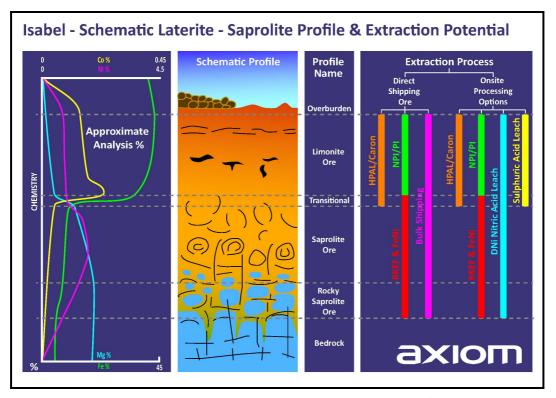
The graph below shows the share price (in Philippine Pesos) of Nickel Asia Corporation, a major Philippines producer of DSO laterites shipped to China and Japan. The share price is up by 160% since the start of 2014 due to the strengthening in DSO prices caused by major supply shortages. DSO prices are predicted to further strengthen in 4Q14 as Chinese stockpiles are run down.



Nickel Asia is currently capitalised at US\$2.28bn and will ship about 16mt of DSO this year. The market cap ratio is US\$141m per annual million tonnes shipped. Applying this ratio to AVQ's potential 2mtpa initial production (1.6mtpa AVQ equity), and applying a 50% risk discount suggests a potential US\$112m (A\$120m) market cap target for AVQ (i.e. A\$0.04/share) with a successful Isabel court case outcome.

Nickel Asia Corporation PSE:NIKL	
Share Price (PHP): *	39.60
Share Price (US\$)	0.899
Share on Issue (m):	2519
Market Cap (US\$m)	2264
Forecast DSO Production (CY14) (mt): **	16.0
Market Cap per mt DSO produced annually (US\$m/mtpa):	141.2
* Share price as at 22 August 2014, exchange rate US\$/FHP= 44.05 ** Production is stated in million wet metric tonnes per annum	

## Schematic showing Isabel Nickel Project laterite profile and potential processing options



Source: Axiom Mining

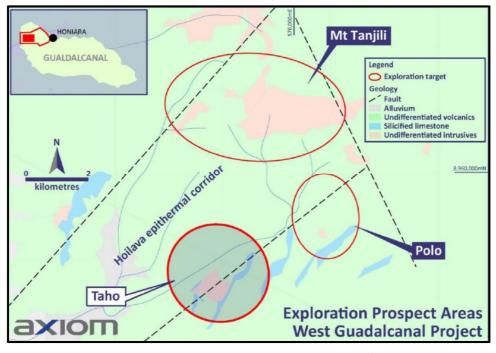
Note: Once Axiom can get on the ground and commence exploration, we expect that a resource confirmation drilling program focusing on a selected part of the mineralised zone, combined with deeper drilling (from ~10 to 20m) to test the potential for higher grade saprolitic laterite, will be Axiom's immediate exploration priority.

The economics of Direct Shipping Ore (DSO) – 'broad brush' numbers based on shallow free-digging mining of a 1% nickel grade laterite indicate potential project gross cashflow of >US\$50mpa.

Capital Cost for 2.0mtpa operation:	US\$20m - US\$25m	
Pricing for 1% Ni DSO ore CIF China	US\$70/t*	
Annual Revenue:	US\$140m	
Mining and Loading Cost: Overheads: Shipping to China (CIF) TOTAL OPEX	US\$15/t US\$3/t <u>US\$25/t</u> <b>US\$43/t</b>	
Gross Cashflow generated:	US\$27/t	
Potential Annual Gross Cashflow:	US\$54m	
*Based on recent nickel ore price quotes for bulk shipment to China.		

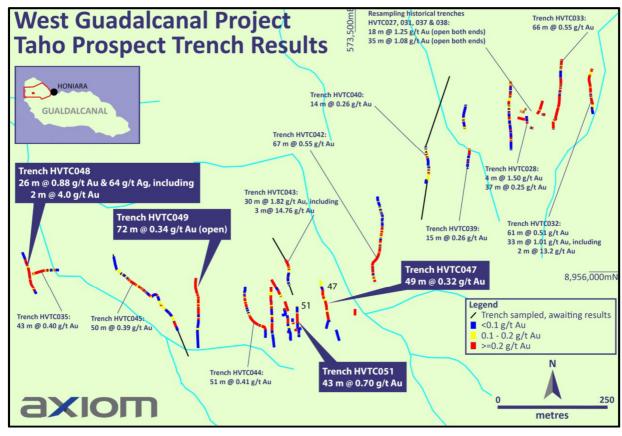
Note: It is emphasised that these estimates are only indicative, and actual capital expenditure and mining costs will be the subject of a feasibility study once Axiom confirms ownership of the Isabel laterite resource.

West Guadalcanal Project map showing key prospect areas where AVQ is targeting Porgera-style goldsilver epithermal mineralisation in the Hoilava epithermal corridor. The Taho Prospect is the immediate focus for the initial 2,500m drilling program about to get underway.



Source: Axiom Mining

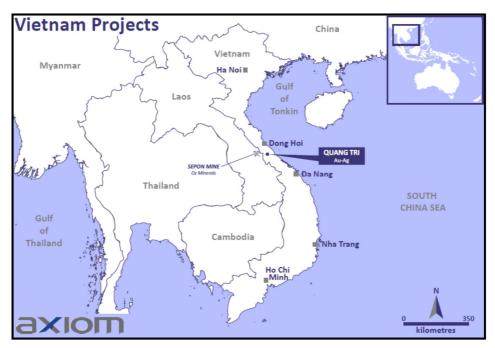
The trenching at Taho has defined a 1.5km long gold mineralised zone. Trenches have indicated some high grade pods (e.g. trench HVTCO43: 3m @ 14.76g/t). High grade Porgera style epithermal mineralisation will be targeted in the initial drilling program – a recent high resolution aeromag survey has contributed important data to assist sub-surface drill targeting. We expect first drill results in mid-October.



Source: Axiom Mining

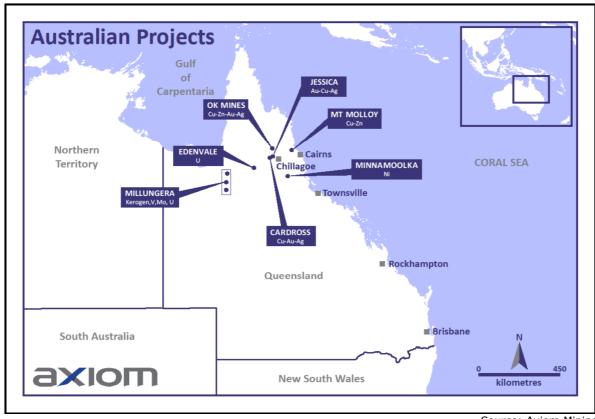
## **AXIOM'S OTHER EXPLORATION PROJECTS**

Location Map Showing Vietnam Projects – the Quang Tri Project is situated in the Trong Son Fold Belt which hosts many major deposits including MMG's Sepon gold-copper mine in neighbouring Laos (1.2moz gold produced) and the Phuoc Son and Bong Mieu operating gold mines in Vietnam.



Source: Axiom Mining

Queensland Project Locations – the 267km<sup>2</sup> Cardross Project is the main focus – a relatively unexplored region prospective for Intrusion-Related Gold Systems (IRGS).



Source: Axiom Mining





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