

11 May 2020

ASX CODE: AVZ

Speculative Buy

Pro-forma Capital Structure

Sector	Materials
Share Price (A\$)	0.063
*Shares (m)	2,825
Options (ex 30.5c, exp 28/2/20) (m)	30.0
Options (various) (m)	15.0
Performance Rights (m)	63.15
Market Cap. (undil) (\$m)	178.0*
Share Price Year High-Low (\$)	0.04-0.105
*Cash (estimate) (\$m)	19.5

(*includes \$10.7M placement & \$5.3M options exercised)

Directors

Dr John Clarke	Chairman
Nigel Ferguson	Managing Director
Graeme Johnston	Technical Director
Rhett Brans	Non-Executive Director
Peter Huljich	Non-Executive Director
Hongliang Chen	Non-Executive Director

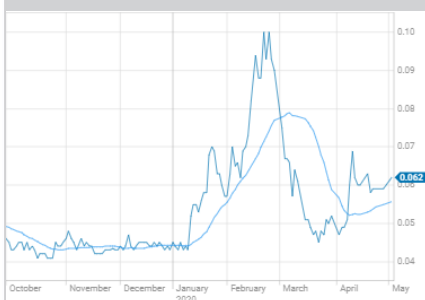
Major Shareholders

Huayou Cobalt	9.40%
Management and Associates	8.30%

Analyst

Guy Le Page +61 (8) 6380-9200

Share Price Performance



Source: COMMSEC

AVZ Minerals Ltd

Approaching Final Investment Decision ...early works commenced

Definitive Feasibility Study of Manono confirms outstanding metrics

- The DFS of the Manono Project (**AVZ** 60-65%) has returned a post tax NPV₁₀ of A\$1.6b (A\$0.965b attributable to **AVZ**) generating a NPAT of A\$5.9 billion (A\$3.54b attributable) based on a A\$839 million CAPEX with a 2.25 year payback.
- The DFS base case contemplates a 700,000 tpa operation producing high-grade SC6 Lithium over a 20 year mine life together with 45,375 tpa of primary Lithium Sulphate.
- The DFS assumes a lithium spodumene concentrate price of A\$1,037/tonne, while the high-value added Lithium Sulphate product fetches A\$11,315.
- What makes the Manono Project impressive is its sheer size and high grades. The Roche Dure JORC Mineral Resource comprises JORC Resources of 400 Mt @ 1.65% Li₂O (spodumene) compared to Pilbara Minerals' Ltd (ASX: **PLS**) Pilgangoora JORC Resource of 223 Mt @ 1.27% Li₂O and the Early Grey deposit of 189 Mt @ 1.5% Li₂O of which a 50% stake was purchased by Wesfarmers in 2019 for A\$776 million.
- In addition Roche Due contains a moderately high grade tin deposit of circa 275 Kt @ 962ppm Sn.
- Further upside potential to the Project metrics includes significant resource upside potential at Carriere de L'Este, additional revenue from tin and tantalum credits and a reduction in pricing for transport and the Government approval of the Special Economic Zone at Manono, which would provide a discount on VAT and other taxes.

\$10.7M Strategic Investment and \$5.3M Underwriting AVZO

- Yibin Tianyi have committed A\$10.7 million in **AVZ** for a 9% stake on completion of the placement.
- Underwriting agreement executed with Canaccord Genuity (Australia) Limited to underwrite the exercise of 177,622,382 listed options expiring 24 May 2020 (A\$5.3M).
- Funding together with existing cash reserves strengthens **AVZ's** balance sheet and positions them with ~A\$19.5 million (pre costs) to progress the Manono Project.

Lithium Outlook

- A global reduction in EV sales attributable to COVID-19 has put a break on lithium demand growth, however longer term scenarios continue to show strong growth for lithium demand in the coming decade. Roskill expects there to be challenges and set-backs in developing lithium mining assets highlighting both technical and financial hurdles bringing sizeable volumes online culminating in a tight lithium market moving into sustained deficit in mid 2020s.

Price Catalysts

- Strategic investors/partners, conversion of MoUs with various Chinese Groups to binding offtake agreements for lithium concentrate and other products.
- Securing Project financing through both Debt and Equity.
- Completing the successful negotiation of the Special Economic Zone and Private Public Partnership agreements with DRC Government.
- Final Investment Decision.

Action and Recommendation

- **RMR** is maintaining a Speculative Buy on **AVZ** underpinned by securing project financing and a favourable financial investment decision to follow.
- Our near term price target post a successful FID is 12 cents, based on an average 20 year concentrate price of A\$1,037/tonne and converting the Manono Special Economic Zone MOU into a binding agreement with the Congolese Government, which would significantly reduce taxes.
- The project is a standout among ASX and TSX listed lithium companies based on the EV / Tonne of contained Lithium and **AVZ's** current share price.

Scoping Study NPV₁₀ after tax of A\$1.58bn (A\$948bn attributable to AVZ) confirms world class status...

...NPV₁₀ post-tax falls to around A\$0.82bn (100% project interest) on a A\$762/t spodumene concentrate price over life of mine

...still a healthy result

28 cents price target for a 4.5Mtpa lithium operation

Roskill forecast Li concentrate prices to average close to A\$1,077 over the next 20 years

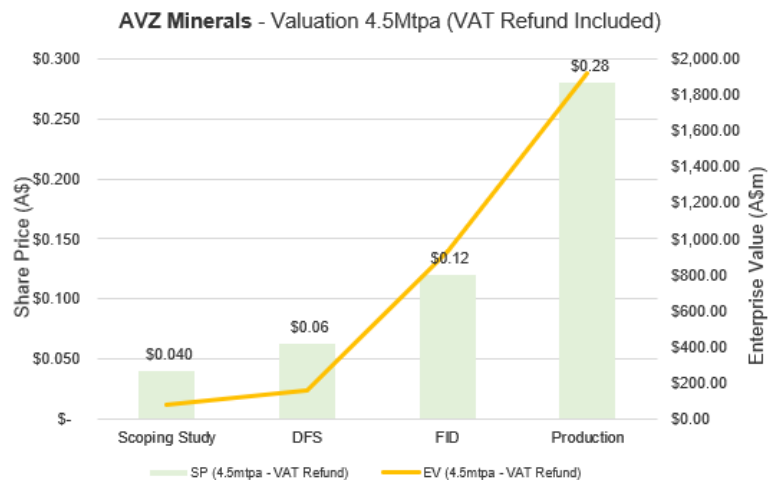
Higher transport costs are offset by production scale and high resource grades...

INVESTMENT CASE

ROBUST METRICS: The DFS delivered an NPV₁₀ (100% project interest) of A\$3.62bn (A\$1.58bn after tax), an impressive IRR 55% (33.2% after tax) based on a CAPEX of A\$854m inclusive of a A\$76.3m contingency (100% interest). The study assumed a 93Mt Proved and Probable Reserve at 1.58% Li₂O producing 1.47Mt @ 6.1% Li Concentrate over 20 years. The DFS has been sensitised for a spodumene concentrate price of A\$762/t which softened the Project NPV₁₀ (100% project interest) to A\$2.45bn pre-tax and A\$0.82bn post-tax which is still an impressive number given there is upside potential to the project .

Description	Base Case SC6 @ \$699/t PLS -1 train VAT Refund Off Tin Recovery On	No Primary Lithium Sulphate SC6 @\$699/t	Base Case with SC6 @ \$495/t
Pre-tax Project NPV ^{10%}	US\$2,348 M	US\$1,323 M	US\$1,585 M
Post-tax Project NPV ^{10%}	US\$1,027 M	US\$466 M	US\$532 M
Project IRR (pre-tax)	53.15%	49.08%	40.57%
Project IRR (post-tax)	33.15%	27.19%	23.10%
Project Payback Period (Pre-tax)	1.50 years	2.00 years	2.08 years
Project Payback Period (Post tax)	2.25 years	3.00 years	3.25 years

SHARE PRICE UPSIDE: Modelling suggests price targets of 12 cents (post FID) and 28 cents at nameplate production based on a 60:40 debt: equity ratio at 4.5mtpa.



LITHIUM DEMAND Short term demand is currently soft, but resumption of economic activity in China following the lift of COVID-19 lockdown measures and an extension of China's EV subsidy program is expected to boost the lithium-ion battery sector and improve market conditions in the medium to longer term.

PEER ANALYSIS: AVZ is significantly undervalued compared to its peers.

FAVOURABLE METALLURGY: Metallurgical recoveries are favourable with Phase 2 Bulk test work completed with exceptional lithia recovery achieved (60.1%, battery grade) and concentrate grades all above the Company's target of 6% Li₂O concentrate.

LOGISTICS: Two transport routes solutions have been optimised, A\$352 per tonne cost to Lobito port (west) and A\$423 per tonne cost to Dar es Salaam port (east). This provides redundancy as well as the option to ship to east or west.

RESOURCE UPSIDE: Significant resource upgrade potential from another 5 large pegmatites at Manono.

REDUCED TAXES: Taxes, customs and duties are expected to be significantly discounted under the AVZ and DRC Government's Special Economic Zone Agreement.

AVZ is focussed on the Manono Project in the DRC

The Company owns 60% of Manono and is responsible for all funding to completion of a Feasibility Study

COMPANY OVERVIEW

AVZ Minerals Limited (“**AVZ Minerals**”, “**AVZ**” or “**the Company**”) is an exploration and development company focused on the Manono Project located in the south of the DRC. The Manono Project is potentially one of the world’s largest lithium-rich LCT (lithium, caesium, tantalum) pegmatite deposits.

AVZ’s objective is to leverage its team’s extensive experience in mine feasibility studies and project development, including significant expertise working in the DRC, to advance the Manono Project and return value to shareholders.

The Manono Project is owned by **AVZ** (60%), **La Congolese D’Exploitation Miniere SA** (25%) (Cominiere, a State-owned enterprise) and **Dathomir Mining Resources SARL** (15%) (Dathomir, a privately owned company). **AVZ** is responsible for funding expenditure to completion of a feasibility study and has rights to market 100% of any product and 100% cost recovery from the same. AVZ has an option over a further 5% equity from Dathomir.

Additionally, **AVZ** holds a 100% interest in the surrounding Manono Extension Project (lithium, tin, tantalum).

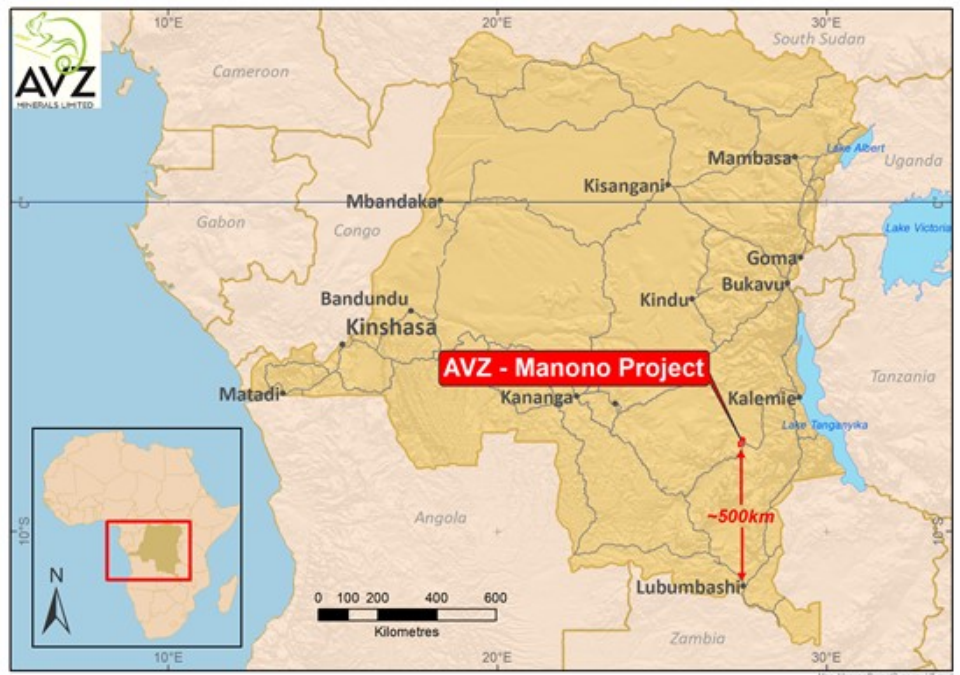


FIGURE 1: Manono Project in Democratic of Congo (Source: AVZ website, December 2019).

The Kibaran belt is a prolific host of pegmatite mineralisation

The strike length of pegmatites at Manono exceeds 13km

~27,500metres drilled with a maximum thickness of 300 metres

LOCATION

The Manono Project comprises PR13359, covering 188km² and is located approximately 500km north of Lubumbashi in the south of the Democratic Republic of Congo.

GEOLOGY

Manono lies within the mid-Proterozoic Kibaran Belt, an intra-cratonic SW-NE striking domain extending for over 1,000km through Katanga and into southwest Uganda. The belt is truncated by the N-S to NNW-SSE trending Western Rift system.

The Kibaran belt comprises a sedimentary and volcanic sequence that has been folded, metamorphosed and intruded by at least three separate phases of granite. The latest granite phase (900 to 950MA) is assigned to the Katangan cycle and is associated with clusters of pegmatite mineralisation containing tin, tungsten, tantalum, niobium, lithium and beryllium occurring throughout the Kibaran terrain. The Katanga Tin Belt (DRC) stretches over 500km from near Kolwezi in the southwest to Kalemie in the northeast comprising numerous occurrences and deposits of which the Manono deposit is the largest known.

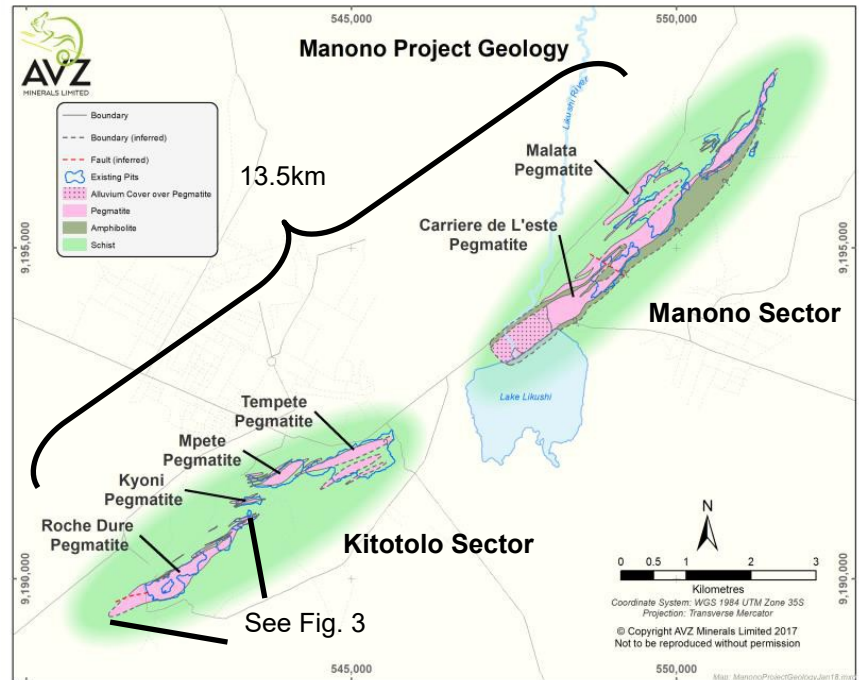


FIGURE 2: Manono/Manono Extension Project Overview (Source: AVZ, ASX Announcement, 12/11/2019).

Lithium mineralisation in pegmatites at Manono (Figure 2) extends along strike for more than 13 km. Over six spodumene bearing pegmatites have been identified in the Manono sector (NE sector) and the Kitotolo sector SW sector). The majority of the smaller pegmatites also contain spodumene and in some cases other lithium minerals. The two largest pegmatites (known as the Carriere de l'Este Pegmatite and the Roche Dure Pegmatite) are each of similar size or larger than the famous Greenbushes Pegmatite in Western Australia.

Roche Dure pegmatite is homogenous and previously produced a concentrate grade of 6.8% at a 10mm crush...

Results reported from May 2019 infill drilling included 209.6m @ 1.73% Li₂O and 954ppm Sn from 133.2m

Roche Dure

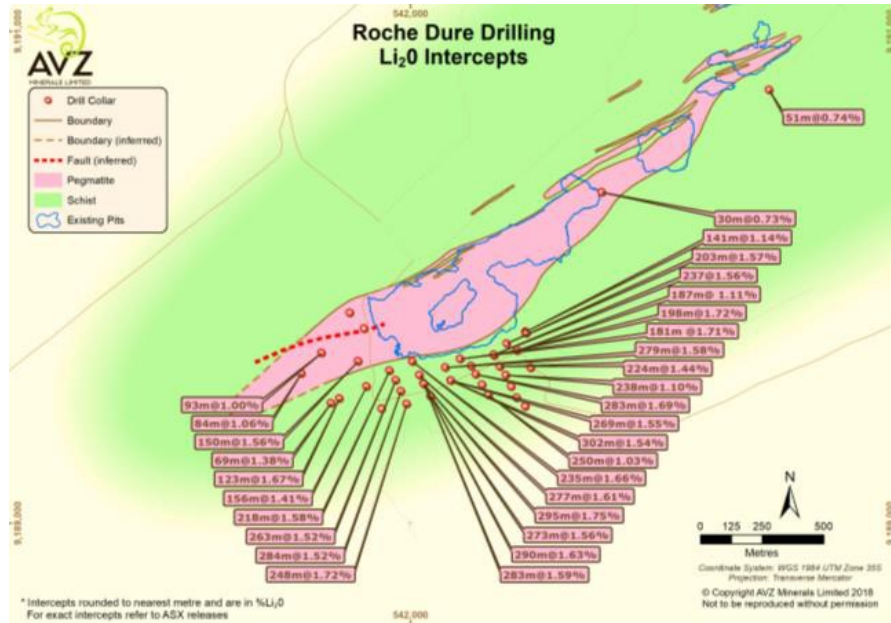


FIGURE 3: Roche Dure Project showing recent drilling (Source: AVZ, ASX Announcement 12/11/2019).

Flat, dipping, 200m wide with best intersection of 89 metres @ 2.01% Li₂O...

...exploration target is 400-600Mt @ 1.3 to 1.7% Li₂O over 1,300 - 3,000 metres strike length with widths of 200-240 metres

Carriere de l'Este

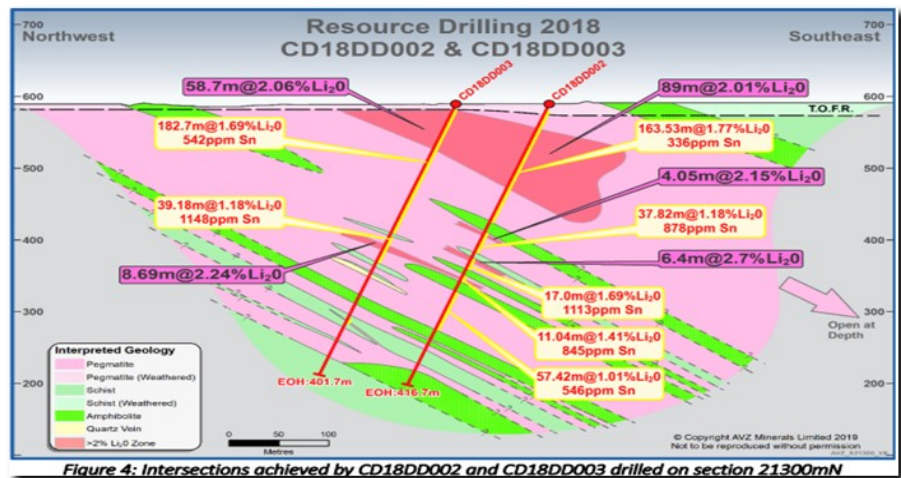


FIGURE 4: Carriere de l'Este Drill Intersections on Section 21300mN (Source: AVZ, ASX Announcement, 12/11/2019).

The Carriere de l'Este prospect is ~5km along strike NE of Roche Dure and forms part of the Manono Project. Initial drilling at Carriere de l'Este confirmed widespread, high-grade spodumene lithium mineralisation over thick intersections. Best intercepts (Figure 4) included 89.0m @ 2.01% Li₂O and 348ppm Sn from 36.0m in hole CD18DD002, 58.7m @ 2.06% Li₂O and 731ppm Sn from 8.3m in hole CD18DD003, and 36.0m @ 2.01% Li₂O and 466ppm Sn from 52.0m in hole CD18DD004.

...Carriere is a potential source of high-grade blending ore for Roche Dure or as a Lithium Sulphate feedstock.

Phase 2 Metallurgical Test Work now complete, delivering exceptional results in terms of lithia recovery.

FID is targeted for July 2020, dependent on financing activities.

In the meantime. The Company has approx. A\$19.5 million in cash (pre costs) reserves to commence early works.

METALLURGY

Phase 2 Heavy Liquid Separation (“HLS”) returned good recoveries on the back of a finer crush size (3.35mm).

Crush Size HLS Density 2.9				
mm	Grade Li ₂ O	Recovery %	Grade Li ₂ O	Recovery %
10	5.77	61.7	6.68	43.2
5.56	6.2	65.9	6.89	50.9
3.35	6.63	70.4	7.26	59.8

TABLE 1: Crush size and recovery data for 10mm, 5.56mm & 3.35mm -Manono Project (Source: AVZ, ASX Announcement, 12/11/2019).

Optimisation trials using Dense Media Separation (“DMS”) are now complete, including a bulk run.

Sample Description (Phase 2: Bulk-04)		Mass	Li ₂ O %	Grade	Mica %	Recovery
		Concentrate %		Fe ₂ O ₃ %		Li ₂ O %
Test-01 (Optimise)	-8+2mm & -2+0.5mm	14.3	6.3	0.72	#	57
Test-02 (Optimise)	-8+2mm & -2+0.5mm	13.4	6.3	0.76	#	53.4
Test-03 (Optimise)	-8+2mm & -2+0.5mm	16.5	6.2	0.84	#	63.4
Test-04 (Optimise)	-8+2mm & -2+0.5mm	13.5	6.5	0.7	#	55.2
Test-05 (Optimise)	-8+2mm & -2+0.5mm	14.7	6.3	0.71	#	57.9
Test-06 (Optimise)	-8+0.5mm	12.4	6.4	0.75	1.69	50
Test-07 (Optimise)	-8+0.5mm	16.5	5.9	0.84	#	59.8
Test-08 (Bulk)	-8+2mm & -2+0.5mm	15.6	6.1	0.72	pending	60.1

TABLE 2: presents the seven optimisation test results including the bulk run (test-08) - Manono Project (Source: AVZ, ASX Announcement, 24/02/2020).

Phase 2 DMS delivered exceptional results. The bulk test produced approximately 160kg of concentrate of 6.1% Li₂O with a 60.1% lithia recovery.

APPROXIMATE TIMETABLE

The key project Milestones including early works, Financial Investment Decision through to the first shipment of SC6 are shown in Table 3. Dates may be delayed by COVID-19 restrictions impacting business activities.

Milestone	Date
Early works commencement ¹⁴	May 2020
ESIA submission for A.C.E in the DRC for approval	April 2020
PE application submitted to CAMI in the DRC	July 2020
Financial Investment Decision ¹⁵	Jul 2020
Process Plant EPC contract award	Jul 2020
HEPP EPC contract award	Jul 2020
Lithium Sulphate Plant EPC award	July 2020
Commence construction (PP, LSP and HEPP)	Aug 2020
Practical completion DMS plant	Aug 2021
Practical completion of Lithium Sulphate plant	Jul 2022
Practical Completion HEPP	Oct 2021
First HEPP Power to MLTO	Oct 2021
First SC6 on ship (FCOS)	Jan 2022

TABLE 3: Manono Project timetable (Source: AVZ, ASX Announcement, 21/04/2020).

RESOURCES & RESERVES

JORC CATEGORY	TONNES	Li ₂ O	Sn	Ta ₂ O ₅	Fe ₂ O ₃
	Mt	%	ppm	ppm	%
MEASURED	107	1.68	836	36	0.96
INDICATED	162	1.63	803	36	0.96
INFERRED	131	1.66	509	30	1.00
TOTAL	400	1.65	715	34	0.96

TABLE 4: Manono Project, Roche Dure Pegmatite Lithium Mineral Resource at 0.5% Li₂O cutoff grade(*Source: AVZ, ASX Announcement, 21/04/2020*).

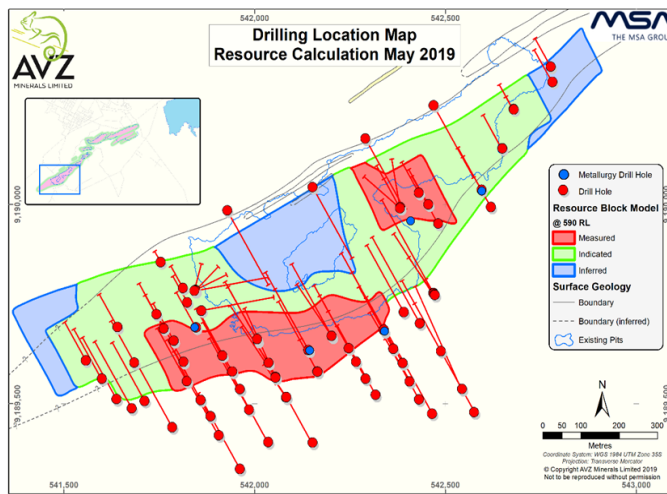


FIGURE 5: Schematic of Drill Hole Locations at Roche Dure used in the Resource Estimation and Classification Categories at 590m elevation (*Source: AVZ, ASX Announcement, 06/03/2020*).

The JORC 2012 Mineral Resource (Table 4, Figure 5) is based on 86 drill holes over 1,600m of strike length together with geological data from a further 5 drill holes (Figure 5). The Mineral Resource is stated at 400 Mt with an average grade of 1.65% Li₂O categorized into Measured, Indicated and Inferred as shown in the above table. Despite the large resource, there still remains 2,600 meters of strike potential to be tested. M'Pete and Tempete (Kitlolo Sector) remain untested.

In addition, a maiden estimate of 275 kt of moderately high grade Tin Domain grading 962 ppm was also reported, as well as Tantalum grading 38 ppm, which provides the project an additional source of revenue as an easily recoverable by-product.

HIGH GRADE TIN DOMAIN	TONNES	Li ₂ O	Sn	Ta	Fe ₂ O ₃
	Mt	%	ppm	ppm	%
MEASURED	93	1.68	932	37	0.92
INDICATED	128	1.60	967	38	0.94
INFERRED	54	1.67	996	37	0.96
TOTAL	275	1.64	962	38	0.29

TABLE 5: Manono Project, Roche Dure Pegmatite Tin and Tantalum Mineral Resource *Source: AVZ, ASX Announcement, 21/04/2020*.

Fe₂O₃ is present at low levels and has been significantly reduced since the beginning of the project.

Significant potential upside resource from Carriere de l'Este located 5km north of Roche Dure. An exploration target of 400-600Mt @ 1.3-1.7% Li₂O has been derived from test results of 6 earlier holes drilled in 2018 and mapped over a strike length of 1500-3000m confirming orebody thicknesses of 200-240m.

Total JORC 2012 Resources stand at a staggering 400Mt @ 1.65% Li₂O

Combined Indicated and Measured Resource of 269 million tonnes is possibly the worlds largest mineable resource

86 drill holes over 1,600 metres of strike for 27,500 metres of drilling...

...including 351m @ 1.77% Li₂O

Significant untested strike length

Potential to grow resources at pegmatite Carriere de l'Este located 5km north-east of Roche Dure

20 year mine life based on a Ore Reserve of 93 Mt at 1.58% totalling 1.47 Mt @ 6.1% concentrate.

The 93 Mt Ore Resource is only 35% of the current Roche Dure mineable resources.

RESOURCES & RESERVES

The Measured and Indicated Resources were converted to Proved and Probable Ore Reserves respectively, subject to mine design, modifying factors and economic evaluation. Ore Reserves of 93.0 Mt have been estimated as 44.6 Mt Proved and 48.5 Mt Probable Ore Reserves, reported in accordance with the JORC (2012 Edition) and as shown in Table 6. The Ore Reserve estimate was prepared by CSA Global, an experienced and prominent mining engineering consultancy.

RESERVE CATEGORY	TONNES Mt	Grade Li ₂ O %	Contained Li ₂ O (Mt)	Grade Sn (g/t)	Contained Sn (kt)
PROVED	44.6	1.62	0.72	958	42.7
PROBABLE	48.5	1.54	0.75	1016	49.3
TOTAL	93.0	1.58	1.47	988	92.0

TABLE 6: Manono Project, Ore Reserve Estimate (Source: AVZ, ASX Announcement, 21/04/2020).

Capex for 4.5mtpa throughput operation estimated at A\$838 million...

...NPV10 (100% Project Interest) to post-tax of A\$1.58bn (A\$948m attributable to AVZ).

Favourable orebody geometry means low strip ratio and low mining costs

DFS returned robust IRR of 33% after tax

Upside from potential Government approval of the Special Economic Zone at Manono, which would provide a discount on VAT and other taxes

Definitive Feasibility Study

Production	Units	Base Case
Material Mined - Ore	Mt	93.0
Total Material Mined	Mt	137.2
Revenue		
Net SC6 Price (Management Assumption Price)	USD/t	673.70
SC6 Production	t	11,354,174
Net Primary Lithium Sulphate Price	USD/t	7,355
Primary Lithium Sulphate Production	t	938,321
Net Tin Price	USD/t	9,955
Tin Production	t	62,699
Net Artisanal Tin Price	USD/t	9,955
Artisanal Tin Production	t	12,659
SC6 Revenue	USD M	7,649
Primary Lithium Sulphate Revenue	USD M	6,901
Tin Revenue	USD M	624
Artisanal Tin Revenue	USD M	126
Construction Costs		
Mine	USD M	(7.10)
DMS Process plant	USD M	(166.58)
Primary Lithium Sulphate process plant	USD M	(178.62)
Hydroelectric Plant	USD M	(46.54)
Non process Infrastructure	USD M	(30.88)
Roads (MN to KD and MN to HEPP) and product transport mobile equipment	USD M	(41.85)
Port equipment (roto boxes and rotator attachment)	USD M	(2.04)
General and Admin	USD M	(22.27)
Contingency @ 10%	USD M	(49.59)
Operational Period Costs		
Mining Cost	USD M	(761)
Processing Cost	USD M	(1,944)
Transport Cost	USD M	(3,153)
Artisanal Tin	USD M	(76)
G&A Cost	USD M	(361)
Royalties	USD M	(536)
Sustaining Capex	USD M	(92)
Closure Costs	USD M	(19)
Project Net Cash Flow Pre-Tax	USD M	6,942
Project Net Cash Flow, Post-Tax, All Equity Basis		
VAT Tax Paid	USD M	(897)
VAT Refunded	USD M	-
Income Tax Paid	USD M	(2,344)
Export Tax Paid	USD M	(765)
Import Taxes Paid	USD M	(29)
Project Net Cash Flow Post-Tax	USD M	3,779
Project NPV 10% - Post Tax	USD M	1,028
Project IRR Post Tax	%	33.15%
Payback Period Post Tax	Years	2.25

TABLE 7: Manono Definitive Feasibility Study (Source: AVZ, ASX Announcement, 21 April 2020).

Summary of Results

The DFS indicates the project to be robust and viable with a product mix of Spodumene Concentrate containing 6% Lithium (SC6) for 700,000 t/a and Primary Lithium Sulphate for 46,000 t/a. Primary Lithium Sulphate will be produced from 153 kt/a of the SC6 product, as a feedstock. The process system will also allow for the recovery of tin and tantalum from the ore, as well as for alluvial tin and tantalum procured by MLTO from a proposed local artisanal mining co-operative.

The assumptions in Table 7 returned a post-tax NPV₁₀ of A\$1.58bn post-tax (AVZ's 60% share is A\$948 million) with a post-tax IRR of 33%. The payback period is 2.25 years post-tax.

Further upside includes resource upgrades at Carriere de l'Este, additional revenue from tin and tantalum credits and a reduction in pricing for transport. Government approval of the Special Economic Zone at Manono, which would provide a discount on VAT and other taxes, would also enhance project economics.

However, there may also be potential downside as the DFS used a 20 year average spodumene price of A\$1,037 which is considerably higher than the 5yr price outlook of Morgan Stanley who expect the price to be closer to A\$770.

A Definitive Feasibility Study was released to the market on 21 April 2020.

The results confirm outstanding project metrics and provides a higher confidence with respect to developing the Manono Project deposit, based on the May 2019 JORC 2012 **Measured + Indicated Resource of 269 mt @ 1.65% Li₂O**.

These Measured and Indicated mineral Resources were converted to **Proved and Probable Ore Reserves of 93 Mt @ 1.58% Li₂O**, subject to mine designs, modifying factors and economic valuation.

The DFS was based on a **4.49 Mtpa high grade** conventional open pit mine with low **ore waste strip ratio of 1:0.48** to supply material to a conventional dense media separation (DMS) plant (recoveries of 60% Li₂O).

The estimates presented in Table 7 are based on a 100% project interest with AVZ currently holding a 60% interest. CAPEX for the processing plant and project infrastructure was estimated at A\$838m (including 10% contingency - A\$76.3m).

Project Sensitivities

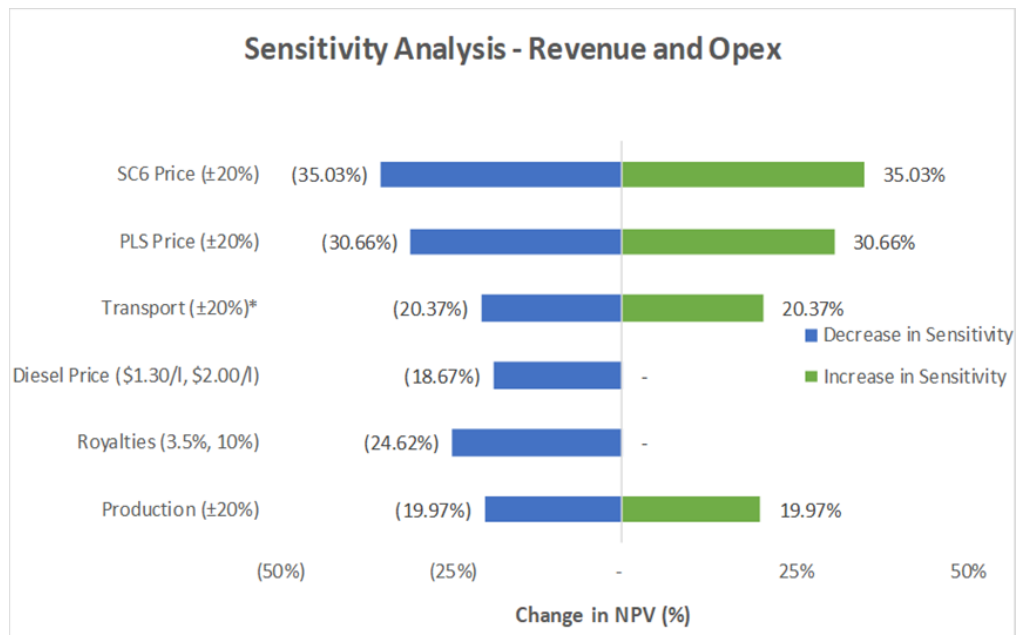
Project base case scenario is reliant on SC6 achieving an average sales price of A\$1,075 and including Primary Lithium Production. Table 8 provides a sensitivity analysis demonstrating the robust economics under a range of scenarios.

Description	Base Case SC6 @\$699/t PLS -1 train VAT Refund Off Tin Recovery On	No Primary Lithium Sulphate SC6 @\$699/t	Base Case with SC6 @ \$495/t
Pre-tax Project NPV ^{10%}	US\$2,348 M	US\$1,323 M	US\$1,585 M
Post-tax Project NPV ^{10%}	US\$1,027 M	US\$466 M	US\$532 M
Project IRR (pre-tax)	53.15%	49.08%	40.57%
Project IRR (post-tax)	33.15%	27.19%	23.10%
Project Payback Period (Pre-tax)	1.50 years	2.00 years	2.08 years
Project Payback Period (Post tax)	2.25 years	3.00 years	3.25 years

TABLE 8: Sensitivity Analysis summary based on 100% project interest, AVZ currently holds 60% interest (Source: AVZ, ASX Announcement, 21 April 2020).

Other Project economic sensitivities have been assessed against key revenue and OPEX inputs as summarised in the below figure.

Project economics most sensitive to SC6 and Lithium Sulphate prices, as well as transport costs due to its central location away from the closest shipping port.



GRAPH 1: Sensitivity Analysis rt Base Case NPV based on 100% project interest, AVZ currently holds 60% interest (Source: AVZ, ASX Announcement, 21 April 2020).

As is the case in many lithium mine developments, the NPV and IRR are most sensitive to changes in revenue parameters such as Spodumene Concentrate and the Lithium Sulphate Price. Due to the location of the mine in the DRC, the cashflows are also sensitive to the transport costs which accounts for 46% of the total operating costs of the Project.

Transport

AVZ investigated various transport routes as seen in Figure 6. The DFS study considered shipment of SC6 in dry loose bulk format and Primary Lithium Sulphate in 20-foot GP marine containers using a combination of truck road freight and rail and then ultimately marine shipping.

Most economical transport costs estimated at A\$352/t of concentrate, based on combined road and rail freight

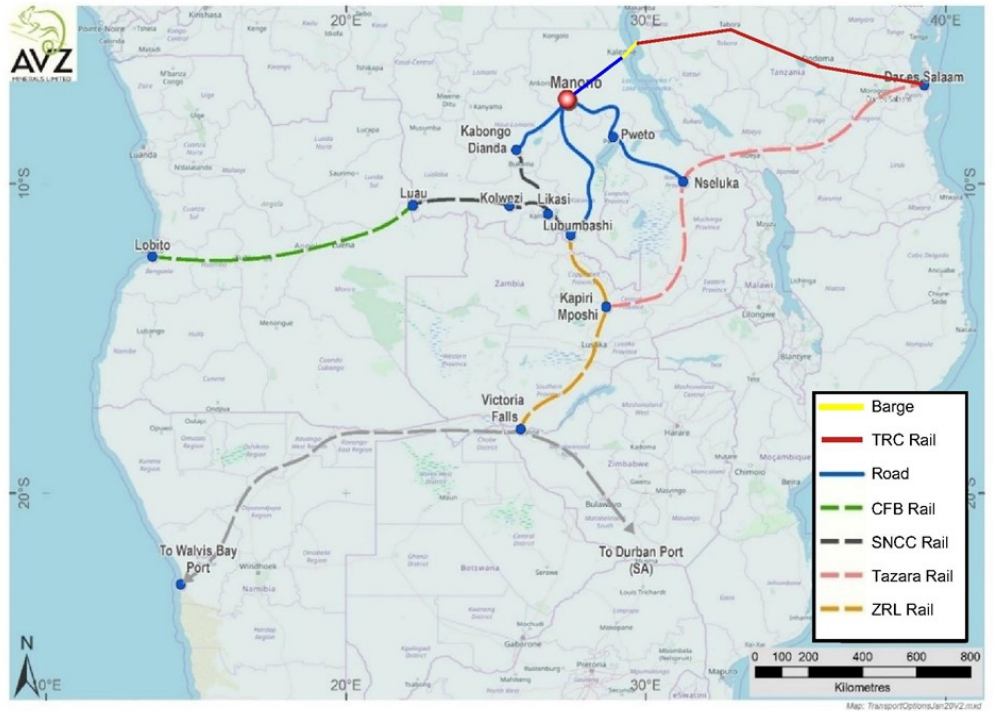


FIGURE 6: Routes investigated for product transportation during DFS (Source: AVZ, ASX Announcement, 21 April 2020).

The Company decided on two preferred routes which services both the east and west coast of Africa for ports at Lobito in Angola and Dar es Salaam in Tanzania. The routes provide flexibility to ship product to customers in Europe, US and the East, and also redundancy to mitigate any disruptions and allow the product to be shipped from the other port in the interim. The summary provided in Table 9 below provides costs for transportation of SC6 product in line with International Chamber of Commerce (ICC) Incoterms 2010.

Route	Product format	Road cost ¹ USD/t	Rail cost USD/t ²	Port handling costs USD/t	Customs and duties cost USD/t FOB	Total cost USD/t FOB
Manono to KD to Lobito (2,486 km)	Dry Bulk	\$29.70	\$152.58	\$17.96	\$29.15	\$229.39
Manono to KD to Dar es Salaam (3,137 km)	Dry Bulk	\$29.70	\$199.01	\$17.50	\$29.15	\$275.36
Manono to KD to Lobito (2,486 km)	Container	\$36.34	\$169.98	\$17.96	\$31.01	\$255.29
Manono to KD to Dar es Salaam (3,137 km)	Container	\$36.34	\$234.07	\$17.50	\$31.01	\$318.92

TABLE 9: Transport cost summary based on the Financial Model Base Case Scenario (Source: AVZ, ASX Announcement, 21 April 2020).

Existing hydro electric power plant to be refurbished for estimated A\$77.7 million over 18 months...

...MoU signed with Ministry of Hydraulic Resources and Energy to assist.

Fund and off-take negotiation expected to progress now that the DFS is complete

Project Power

Historically Dathomir and Cominière have agreed that Dathomir will secure finance for the rehabilitation of the Mpiana Mwanga Hydro Electric Power Plant (HEPP). The project would comprise an installation of up to a 32MW plant through the rehabilitation of the current facility and the potential addition of one extra unit to increase capacity to 64 MW.

The DFS determined the HEPP could be refurbished for A\$77.7 million and the timeline to complete the construction is estimated at 18 months start to finish.

MOU signed between AVZ Power and the Ministry of Hydraulic Resources and Energy to investigate refurbishing the Mpiana-Mwanga hydro-electric power station on Luvua River .

Funding and Strategic Alternative

Post completion of the DFS, the Company has been reviewing financing options for the Manono Project. Several Australian and International groups have shown interest but were awaiting release of the DFS to enable more detailed discussions. At this stage the Company is yet to receive any written or binding financing offers.

In addition, the Company has been progressing offtake discussions with several groups including Yibin Tianyi Lithium Industry Co., Ltd and other potential buyers of product from the Manono Project. The details within the DFS will assist in securing these agreements and may provide some advance funding under the offtake arrangements.

Yibin Tianyi also to invest A\$10.6 million in AVZ minerals for a 9% stake on completion of placement (ASX Announcement 4 May 2020). Yibin are building a 25ktpa hydroxide plant in China with plans to expand to 100ktpa in four annual stages.

Li market likely to remain in over-supply in the medium term

TABLE 5: World Li demand-supply (real terms) (source: Morgan Stanley, March 2020)

LITHIUM OUTLOOK

Short to medium term.....

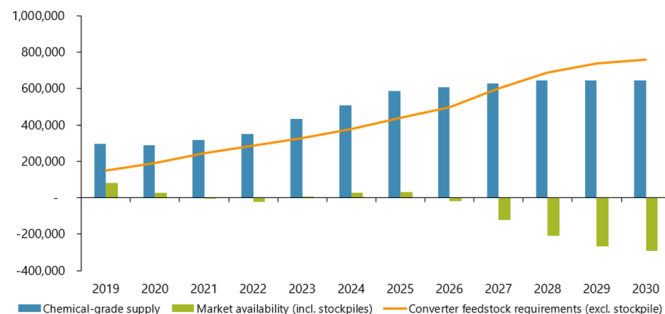
The market is shifting from carbonate to hydroxide products with a requirement for higher purity while at the same time aggressive cost cutting by both brine and hard rock producers as demand ramps up. While the demand/supply equation is likely to remain volatile, **Morgan Stanley** (Table 10) are projecting the market to remain in surplus over the next 5 years with spodumene prices forecast to trade between ~\$US500/tonne and ~\$US520/tonne. The impact of the Coronavirus on world GDP growth, slower adoption of EV's and lower Chinese subsidies has contributed to the softer outlook projected until 2024.

	Unit	2020e	2021e	2022e	2023e	2024e
World Supply	Kt	392	493	603	694	754
Growth in Li Supply	%	10%	26%	22%	15%	9%
World Demand	Kt	364	412	459	515	603
Growth in Li Demand	%	17%	13%	11%	12%	17%
Market Balance	Kt	28	82	144	179	152
Li Carbonate (FOB Lat Am)	US\$/t fob	USD 8,600.00	USD 8,000.00	USD 7,775.00	USD 7,500.00	USD 7,500.00
China Spot 99.5% (bat-grade)	US\$/t	USD 7,000.00	USD 7,200.00	USD 7,300.00	USD 7,400.00	USD 7,400.00
Spod. Price (CIF China)	US\$/t	USD 500.00	USD 520.00	USD 526.00	USD 511.00	USD 499.00
China Spot (56.5% Hydroxide)	US\$/t	USD 7,000.00	USD 7,200.00	USD 7,300.00	USD 7,400.00	USD 7,400.00

TABLE 10: Summary of Lithium supply and demand model (source: Morgan Stanley, March 2020)

Longer term.....

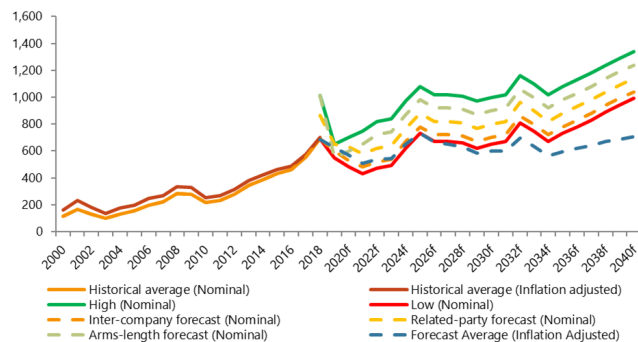
Although the outlook for both mine and refined supply is plentiful until the mid-2020's, **Roskill** expects continued strong demand growth to place a strain on supply over the longer term. Beyond 2025 the concentrate market is forecast to be faced with structural deficits where existing producer latent capacity is insufficient to meet the increasing feedstock demand from converters.



GRAPH 2: Lithium chemical-grade concentrate availability incl. stockpiles, 2020-2030 (t LCE) (Source: AVZ, ASX Announcement, 21 April 2020)

Battery Grade lithium market begins to tighten by 2025 as EV adoption rates gain momentum,

In regards to price, the market begins to tighten by 2025 as EV adoption rates gain momentum, with **Roskill** forecasting an average real arm's length price of USD 736/t CIF for the period 2020 to 2040.



GRAPH 3: Average annual price forecast for chemical-grade spodumene concentrate, 2010-2040 (US\$/t 6.0% Li₂O CIF) (Source: AVZ, ASX Announcement, 21 April 2020)

Conversion Capacity issues to persist

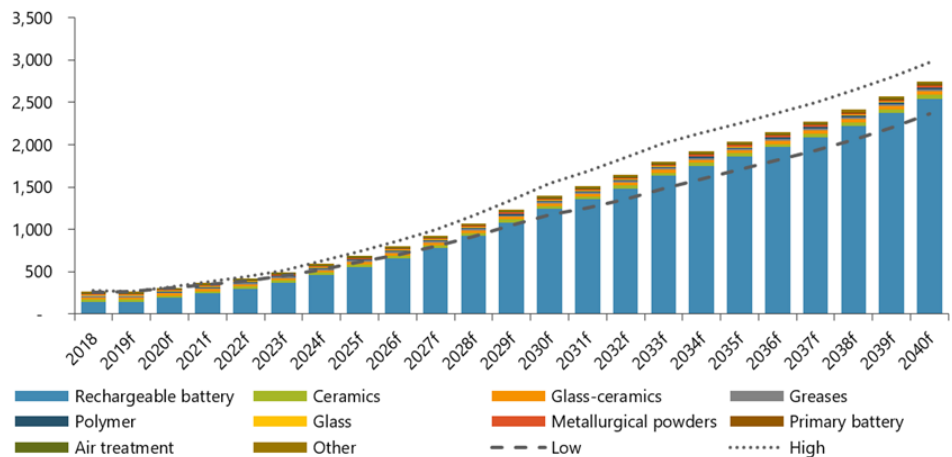
Conversion Capacity Looks Constrained — Conversion capacity is currently ~200kt, but is expected to expand to ~400kt by 2020, however there remains a significant difference between production and capacity with overall utilization at ~50% and Chinese Tier 2 producers at ~33%. With the ramp-up of ex-China conversion capacity, utilization rates are expected to increase. Even at 70% this constrains hard rock supply to ~280kt vs potential mine supply of ~400kt by 2020.

Demand Short term demand is currently soft, but resumption of economic activity in China following the lift of COVID-19 lockdown measures and an extension of China’s EV subsidy program expected to boost the lithium-ion battery sector and improve market conditions in the medium to longer term .

Electric Vehicle demand for lithium likely to dominate

China is targeting 40% of passenger cars being electric by 2030

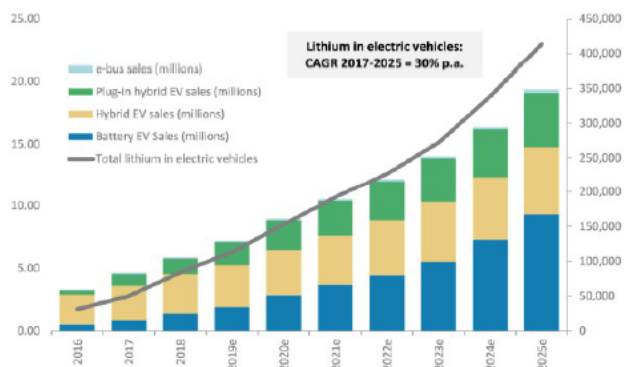
Chinese Government extends subsidies on new electric vehicles.



GRAPH 4: Consumption of Lithium by first use, 2018-40 (Source: Roskill, April 2020).

China last year released a draft NEV 2021-35 development plan with, among other things, a very aggressive target of NEV sales at 20% of total auto sales in 2025 and 40% in 2030, well ahead of market expectations. On this basis, forecast EV battery demand could increase from 57GWh in 2018 to 348GWh in 2025 (30% CAGR) with electric vehicles becoming mainstream by 2035.

To meet these sustainable goals and in response to COVID-19 the Chinese Government announced in March that it will extend subsidies on NEVs until the end 2022. China’s NEV market is expected to recover in Q2 this year as the COVID-19 outbreak has eased in China.



GRAPH 5: Forecast of lithium demand in EV batteries (tons) (source: Morgan Stanley, March 2020)

PEER ANALYSIS

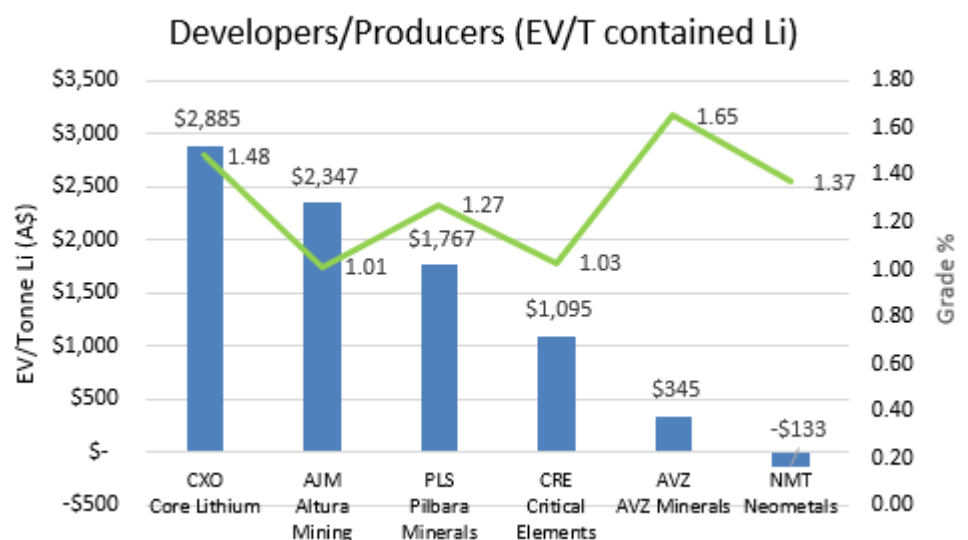
Our comparable producers/developers (Table 11) paints an overall bleak picture with high debt levels (**PLS**, **AJM**) contributing to negative C1 operating costs. The exception being **GXY's** Mt Cattlin operation in the south-west of WA returning a healthy A\$163/tonne or a 33% margin. With spodumene markets in oversupply for the short-medium term we believe there is further pain to come.

Along with **GXY** the stand-out (albeit comparing a study with an operation) is **CXO** with a low CAPEX (DMS plant only), high-grades, broad widths, good recoveries and excellent logistics (low haulage costs) contributing to comparatively low C1 costs and strong margins. The low costs are offset to some extent by the high strip ratios due to the steeply dipping nature of Grants. As referred to earlier in this report, there is scope to increase to significantly increase JORC Reserves and mine life at BP33 and other surrounding prospects.

Cost analysis suggests that Manono will be cheap to mine and process but expensive to transport to market

COMPANY	Core Lithium	Pilbara Minerals	Altura Mining	Galaxy Resources	Alita Minerals
ASX CODE	CXO	PLS	AJM	GXY	A40
PROJECT	Finniss	Pilgangoora	Pilgangoora	Mt Cattlin	Bald Hill
CAPEX (A\$m)	\$73	\$214	\$140	-	\$42
Debt (A\$m)	\$55	\$143	\$180	-	\$40
Est. Interest Expense (A\$m)	\$7	\$17	\$27	-	\$6
H1 FY 20 Production (kt)	175	175	105	163	128
C1 Costs March-20 Quarter (\$/t)	\$462	\$812	\$603	\$518	\$838
Interest Cost per Tonne (\$/t)	\$40	\$106	\$275	-	\$51
C1 plus Interest Expense (\$/t)	\$502	\$918	\$878	\$518	\$889
Spodumene Conc Price (\$\$/t)	\$770	\$770	\$770	\$770	\$770
Project Margin \$/t	\$268	-\$148	-\$108	\$252	-\$119
Project Margin as % Sales \$	35%	-19%	-14%	33%	-16%

TABLE 11: Peer comparison based on project fundamentals including cost analysis (Source: RMR internal modelling, November 2019).



GRAPH 6: Enterprise Values comparisons of ASX/TSX-V listed lithium developers/producers (Source: RM Research).

With sharp falls in lithium explorer/developer share prices together with a suite of mostly marginal to sub-economic hardrock projects, our EV analysis (Graph 4) does not provide a lot of useful data. Given the market is more focussed on production metrics and all in sustaining costs, table 11 provides a more useful set of benchmark criteria.

ESTIMATE OF VALUE

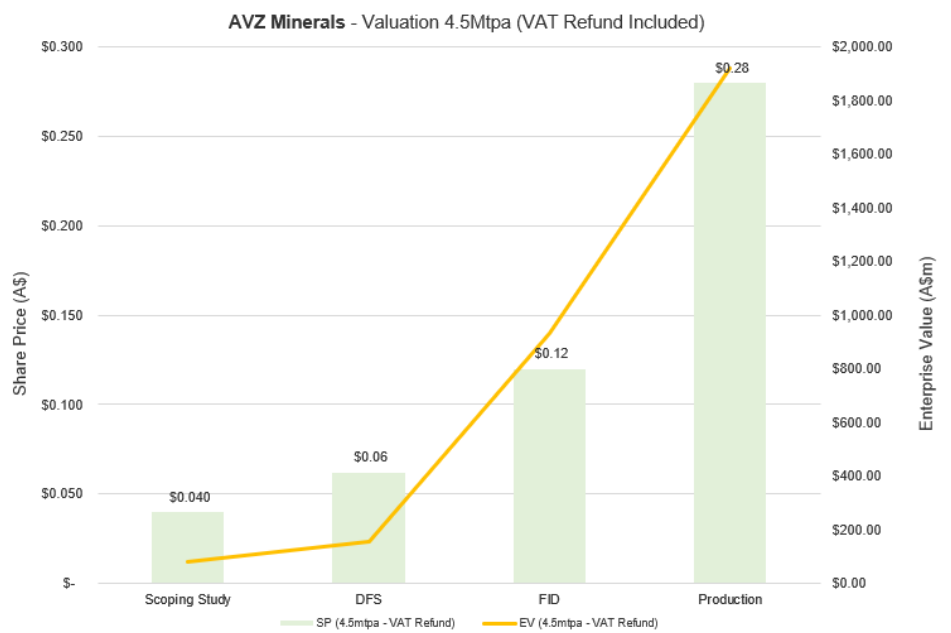
Our estimate of future value (Graph 5) moves on from EV/tonne calculations as the real value lies in the ability of the Company to forge from a positive DFS to FID and then to production. We have assumed, *inter alia*, the following;

- LOM 4.5Mtpa production scenario (VAT Refund included in modelling)
- 60:40 debt; equity with A\$335m equity raising at 10 cents
- Approximately 6.2 billion **AVZ** Shares on issue (fully diluted) at commencement of production with a A\$854m CAPEX.
- Assumes **AVZ** will trade at 50% discount to attributable NPV₁₀ post FID/Pre commissioning and at NPV₁₀ assuming name plate production is achieved.

We consider there is upside in the **AVZ** share price to 12 cents post FID/Pre-commissioning....

...and 28 cents per share at nameplate production...

...our modelling assumes the delivery of a positive DFS and a fully funded 4.5mtpa operation.



GRAPH 7: Possible share price outcomes based on various project development stages (Source: **RM Research** internal modelling, May 2020)

Manono Extension Project is 100% owned by **AVZ** and host potential strike extensions to the main Manono project area

Plenty of scope to cut creative finance deals to allow for project funding....

...and manage dilution to **AVZ** shareholders

OTHER PROJECTS

Manono Extension Project (100% AVZ)

The Manono Extension Project comprises two granted exploration permits (PRs 4029 and 4030) covering 242.25 sq km completely surrounding the Manono Project licence. Within the project, there are two primary targets delineated from the photo-geological interpretation (completed in 2014) that may represent strike extensions of the Manono pegmatite to the southwest and to the north east:

- **SW Extension Target:** A pegmatite striking for approximately 800m and up to 200m in width. The SW target is a weathered calcic feldspar (albite)-quartz-muscovite pegmatite with similar mineralisation style to the main Kitotolo pegmatites which may represent the southern extension to the Kitotolo orebody.
- **NE Extension Target:** A well-developed soil covered laterite, 2 to 3 metres thick in an east-west orientation measuring 2km by 1.5km.

CORPORATE

- **Yibin Tianyi** to invest A\$10.6 million in **AVZ Minerals** for a 9% stake on completion of the placement (<10% therefore not subject to approval of the Foreign Investment Review Board). Additionally, negotiations continue to close out a binding offtake agreement.
- **AVZ** Executes A\$5.3 Million Underwriting Agreement for Options (177,622,382 options ex at A\$0.03) with Canaccord.

KEY RISKS

POLITICAL RISK: DRC is considered a relatively high-risk jurisdiction however there remains significant foreign investment in the country including **Ivanhoe Mines** and **Barrick**.

PERMITTING/APPROVALS/LICENSING: There is risk that the permitting and approval of the Manono Project may take longer and cost more than currently envisaged.

COMMODITY PRICE OUTLOOK: **AVZ** is primarily exposed to lithium concentrate prices which are likely to be subject to supply side pressure in the medium term that could adversely affect the project economics at Manono, and hence the value of the **AVZ** securities. Additionally, the Manono Project is exposed to Primary Lithium Sulphate pricing. The DFS has taken a conservative approach, applying Roskill forecast price for Technical Grade Lithium Carbonate between 2020 and 2040 and then applied a 50% discount for Primary Lithium Sulphate, which minimises the downside risk.

FINANCE RISK: The primary risk is sourcing the A\$854 million in capital required to develop the project which we believe could be provided by potential Chinese off-take partners. This is likely to greatly reduce the projects debt and equity financing requirements particular if deals are done at the project level.

TRANSPORT: The project is reliant on multiple modes of transport that increase the probability of supply chain management breakdown and failure to meet future offtake contracts. This has been somewhat mitigated by optimising two preferred transport routes reducing the risk of supply chain management breakdown.

John has over 47 years technical and experience in the resources sector

Nigel has extensive operating and corporate experience in the region of the Manono Li-Sn Project

Graeme has successfully completed feasibility studies and has worked on 5 projects that resulted in the opening of mines...

Rhett brings experience extends across a full spectrum of development activities in a range of commodities

Peter has extensive investment banking finance experience...

DIRECTORS

Dr John Clarke, PhD

CHAIRMAN

Dr Clarke commenced his career as a metallurgist at Goldfield's Kloof Gold Mine in 1972. The majority of his career has focused on the operation, development or management of African mining projects. In 1988 at **Ashanti Goldfields Company Ltd** ("AGC") he was involved in the future corporate development strategy for AGC including the Ashanti Mine Expansion Project. In 1993, he was made responsible at Ashanti's head office to liaise with all stakeholders regarding the IPO of Ashanti on the London and Ghana Stock Exchanges. In 1994, he was appointed to the Board of Ashanti Goldfields as Executive Director. In 1997, he was appointed President and CEO of **Nevsun Resources**, a gold explorer and developer listed on TSX which developed the Bisha gold mine in Eritrea. John was also Vice Chairman and Non-Executive Director of **Nevsun** from 2008 to 2009. More recently, he was President and CEO of **Banro Corporation** from 2013 until 2018 and was focused on the development of gold projects in eastern DRC.

Mr Nigel Ferguson, BSc Geology, FAusIMM, MAIG

MANAGING DIRECTOR

Mr Ferguson is a geologist with 34 years of experience having worked in senior management positions for the past 20 years in a variety of locations. He has extensive experience in the definition of precious and base metal mineral resources, both scoping and feasibility studies globally, including DRC, Tanzania with **Ashanti Exploration**, Australia with **CRAE & Barrack Mines**, South East Asia and Central America with **Condor Gold**. He has been active in the DRC since 2004 in gold and base metals exploration and resource development.

Mr Ferguson is also Director of **Okapi Resources Ltd** (ASX: **OKR**) and non executive Director of **AJN Resources Corp**, a CSE listed public company.

Mr Graeme Johnston, MSc Geology

TECHNICAL DIRECTOR

Mr Johnston is a geologist with over 30 years' experience in Australia, the Middle East, Romania, Malaysia and the DRC. Mr Johnston worked on various gold projects before joining Rio Tinto and then with Midwest Corporation where he was the Principal Geologist during its sale to **Sinosteel Corporation** for US\$1.4 billion. Following this, he was Technical Director for 9 years with Ferrowest Limited and contributed to the successful completion of the Feasibility Study for the Yalgoo Pig Iron Project. Mr Johnston's technical experience is focused on the transition between orebody delineation and mine opening and has worked on over five projects that resulted in new mines being commissioned. Mr Johnston initially joined the **AVZ** team in May 2017 as Project Manager for the Manono Lithium Project.

Mr Rhett Brans, Dip. Engineering (Civil)

NON-EXECUTIVE DIRECTOR

Mr Brans is an experienced director and civil engineer with over 45 years' experience in project developments. He is currently a Non-Executive Director of **Australian Potash Limited** and **Carnavale Resources Ltd**. Previously, Mr Brans was a founding director of Perseus Mining Limited and served on the boards of **Syrah Resources Limited**, **Tiger Resources Limited** and **Monument Mining Limited**. Throughout his career, Mr Brans has been involved in the management of feasibility studies and the design and construction of mineral treatment plants across a range of commodities and geographies including for gold in Ghana, copper in the DRC and graphite in Mozambique. He has extensive experience as an owner's representative for several successful mine feasibility studies and project developments.

Mr Peter Huljich

NON-EXECUTIVE DIRECTOR

Mr Huljich has over 25 years experience in the legal, natural resources and banking sectors with a particular expertise in capital markets, mining, commodities and African related matters. He has worked in London for several investment banks, including Goldman Sachs, Barclays Capital, Lehman Brothers and Macquarie Bank with a focus on commodities and equity and debt capital markets and has extensive on the ground African mining, oil and gas and infrastructure experience as the Senior Negotiator and Advisor for Power, Mining and Infrastructure at Industrial Promotion Services, the global infrastructure development arm of the Aga Khan Fund for Economic Development (AKFED) whilst resident in Nairobi, Kenya. Mr Huljich holds Bachelor of Commerce and an LLB (University of Western Australia) and is a Graduate of the Securities Institute of Australia. Mr Huljich is also a graduate of the AICD Company Directors Course. Mr Huljich is also an Independent Non-Executive Director of ASX Listed **Kogi Iron Limited** ASX:KFE

Honliang is also a director and president of Huayou Cobalt's parent company

DIRECTORS (Cont)

Mr Hongliang Chen

NON-EXECUTIVE DIRECTOR

Mr Hongliang Chen is a nominee of the Huayou Cobalt Group to the **AVZ** Board. Mr Chen joined the **Huayou Cobalt Group** in May 2002 and is currently a director and the president of the parent company, Shanghai stock exchange-listed **Zhejiang Huayou Cobalt Co Ltd**. Mr Chen previously worked in management positions at the Agricultural Bank of China, **Tongxiang Branch Investment Corporation** Tongxiang Securities Department and **Shenyin Wanguo Securities Co Ltd**.

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Speculative Buy	We forecast strong earnings growth or value creation that may achieve a return well above that of the broader market. These companies also carry a higher than normal level of risk.
Hold	A sound well managed company that may achieve market performance or less, perhaps due to an overvalued share price, broader sector issues, or internal challenges.
Sell	Risk is high and upside low or very difficult to determine. We expect a strong underperformance relative to the market and see better opportunities elsewhere.

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