ASX ANNOUNCEMENT
16 March 2020

AVZ Minerals Limited
Level 2, 8 Colin Street,
West Perth WA 6005
Australia

T: + 61 8 6117 9397
F: + 61 8 6118 2106
E: admin@avzminerals.com.au
W: www.avzminerals.com

ABN 81 125 176 703

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

Market Cap
$140 M

ASX Code: AVZ

Preliminary Flotation Test Work Update and Initial Carriere de l'Este Metallurgical Results

Highlights

- Phase 2 metallurgical initial test programme (Flotation) completed
- Lithia flotation recoveries were consistent averaging 69% recovery after adjusting for losses to slimes, magnetic separation and flotation tailing
- Concentrate grades from 6.1% to 6.4% Li_2O were all above the Company's target of 6% Li_2O spodumene concentrate ("SC6.0")
- Iron (Fe_2O_3) levels were all within a SC6.0 concentrate specification with significant upside demonstrated in Test-06 and Test-07
- A marked decrease in Fe_2O_3 content was achieved by increasing the magnetic field intensity of the WHIMS process presenting as a further upside optimisation
- Initial metallurgical test work completed on 100kgs of quarter drill core from Carriere de l'Este ("CDL")
- Randomly sampled high grade sections generated a 2.37% Li_2O bulk sample head grade
- DMS100 testing on CDL samples generated a SC6.2% with a recovery of 55% at 5.6mm crush size and a SC6.3% with a 66% recovery at 3.35mm crush size

AVZ Minerals Limited (ASX: AVZ, or "the Company") is pleased to provide an update on its preliminary flotation test work programme at its Manono Lithium and Tin Project ("Manono Project") in the Democratic Republic of Congo.

AVZ's Managing Director, Mr. Nigel Ferguson, said: " We are pleased to report that the initial results of the Flotation test programme have demonstrated extremely positive additional lithia recoveries for lithium. This demonstrates at an early stage, there is significant upside for the potential maximisation of spodumene recovery by the flotation treatment of the undersize material from the planned Roche Dure crushing circuit. These are early results and further work is required, however this is highly encouraging and the Company has committed to complete further test work on this opportunity at the appropriate time.

"Whilst this test work continues to focus on the Roche Dure deposit, we have also received the initial metallurgical results from a 100kg bulk diamond core sample from the Carriere de l'Este deposit. This concept study used a quarter drill core sample, selected randomly from the high grade sections at Carriere de l'Este that produced a 2.3% Li_2O head grade.

"Using the same techniques as the Phase 1 Roche Dure metallurgical study, this material has produced a 6.2% – 6.3% Li_2O spodumene concentrate at 5.56mm and 3.35mm crush size respectively. This result, whilst preliminary in nature, suggests there is a strong possibility that Carriere de l'Este material can be used as a blending feed-stock at the Roche Dure process plant to increase the lithium content and value of the final product needed by our potential clients.

"It also opens up the possibility of this material being used as a feedstock to a downstream processing plant such as a lithium sulphate plant with less tonnages of material being required to produce a value added product, a possibility that we are currently, vigiorously investigating."

Results Summary – Flotation Programme

This metallurgical update presents progress results from a preliminary metallurgical flotation test programme that aimed to explore fine lithia recovery for a potential future plant expansion. The programme was initiated in parallel to the Phase 2 Metallurgical programme using finer grained undersize material produced during this stage of the programme. It was designed to compliment the Company's Definitive Feasibility Study ("DFS").

Preliminary Flotation Results

Bench scale flotation tests at the Nagrom Laboratories are essentially completed. Seven tests were undertaken using -0.5 mm HPGR crushed "Fines" aimed at maximising product recovery and grade. Upon successful testing, the tailored parameters were applied to treat a combined DMS rejects / Fines stream representative of the foreseeable flotation circuit feed stream.

Table 1 presents test results including the combined Fines / DMS rejects test (Test-08).

Table 1 - Preliminary Flotation Testwork

Sample Description (Bulk-04)		Grade		Recovery
		Li_2O %	Fe_2O_3 %	Li_2O %
Test-01 (Fines)	212µm Grind; 20µm Deslime	6.3	0.83	68.2
Test-02 (Fines)	150µm Grind; 20µm Deslime	6.3	0.89	67.1
Test-03 (Fines)	106µm Grind; 20µm Deslime	6.2	0.83	72.7
Test-04 (Fines)	212µm Grind; 10µm Deslime	6.5	0.72	70.2
Test-05 (Fines)	212µm Grind; 32µm Deslime	6.3	0.67	74.6
Test-06 (Fines)	212µm Grind; 20µm Deslime	6.4	0.45	72.7
Test-07 (Fines)	212µm Grind; 20µm Deslime	5.9	0.42	57.6
Test-08 (Fines+ DMS Intermediates)	212µm Grind; 32µm Deslime	6.1	0.97	68.8

Lithia flotation recoveries were reasonably consistent averaging 69% after adjusting for losses to slimes, magnetic separation and flotation tails. Concentrate grades from 6.1% to 6.4% Li_2O were all above the Company's target of 6% Li_2O spodumene concentrate ("SC6.0").

Iron (Fe_2O_3) levels were within a SC6.0 concentrate specification with significant upside demonstrated in Test-06 and Test-07. A marked decrease in Fe_2O_3 content was achieved by increasing the magnetic field intensity of the WHIMS process.

Combined Dense Media Separation and Flotation Results

The combined fines and DMS intermediates stream recovered 69% lithia, same as the average of all seven parameter investigation tests, with a concentrate grade of 6.2% Li_2O. Including the flotation results of the combined stream into an overall mass balance, the potential flotation contribution for the Manono Project is presented in Table 2.

Table 2 - Indicative Flotation Recovery Contribution

Sample Description (Bulk-04)	Grade		Recovery
	Li_2O	Fe_2O_3	Li_2O
	%	%	%
DMS Waste	0.28	0.42	8.2
DMS Concentrates*	6.10	0.72	60.1
Flotation Tailing	0.50	0.85	10.3
Flotation Concentrate	6.21	0.97	21.5
Combined Concentrates	6.1	0.79	81.5
Calculated Head	1.58	0.64	100

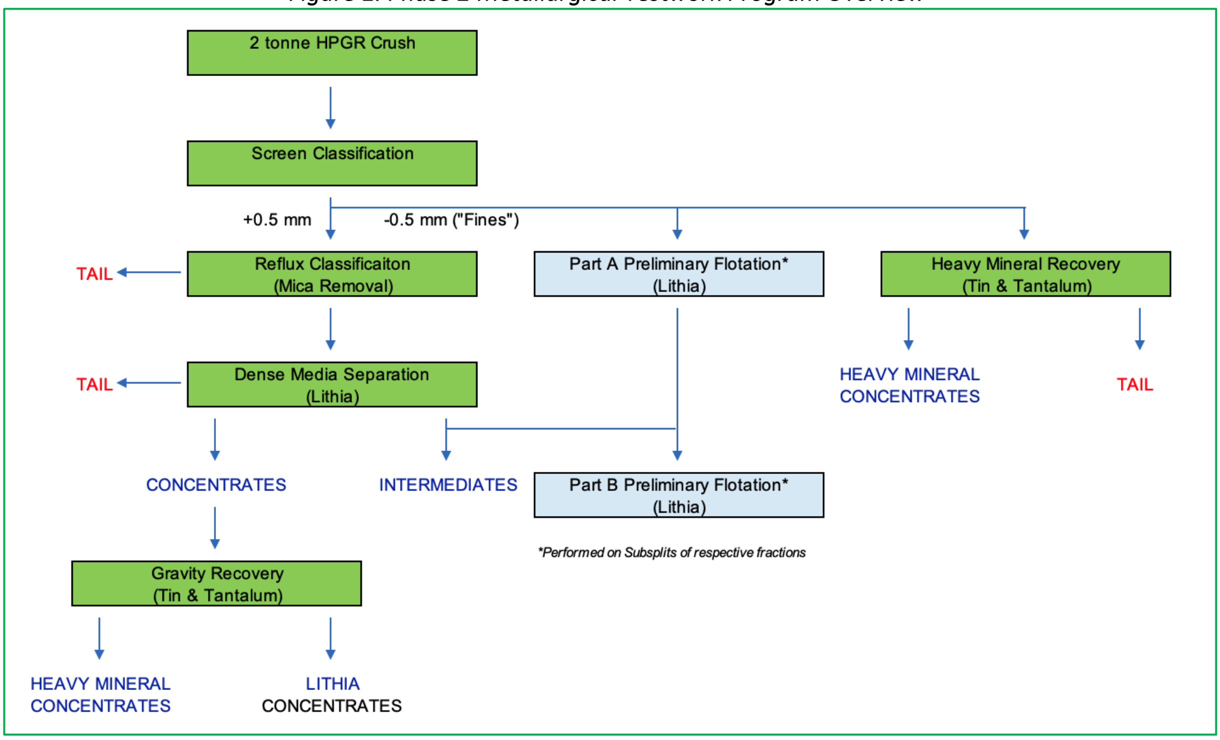
The preliminary flotation results indicate a potential incremental recovery improvement of up to 21.5% for a desriable SC6.0 concentrate grade. The results compliment the previously released DMS optimisation testwork (*refer ASX release 24 February 2020*) and provides the foundations for definitive testing before the Company advances the second phase (Flotation Expansion) of Manono's Project development.

Scope of Testwork

Metallurgical Program Overview

A broad overview of the (Phase 2) definitive feasibility level testwork program is presented in Figure 1 below. As part of the Phase 2 programme of works, preliminary flotation trials commenced with further testing anticipated after the completion of definitive studies.

Figure 1. Phase 2 Metallurgical Testwork Program Overview



The two tonne parcel of ore (Bulk-04) was crushed using high pressure grinding rolls ("HPGR") to replicate typical performance of industrial sized equipment. The HPGR generates more minus 0.5mm fines material than a typical laboratory crushing process which translates to greater lithia losses to this stream when compared with typical control crush processes. The adoption of the HPGR crush method provides confidence in the scalability of laboratory results to an operating processing facility.

After HPGR crushing the sample was screened with the minus 0.5 mm “fines” sent for detailed heavy mineral recovery and preliminary lithia flotation testwork. A reflux classifier was used to separate deleterious mica from the balance of the bulk samples’ coarse (>0.5mm) fraction prior to DMS testing.

Dense media separation (“DMS”) testwork comprised seven (7) optimisation tests which involved adjusting dense media cyclone (DMC) operational parameters to maximise product recovery while targeting a spodumene concentrate (SC) grading circa 6% Li_2O (Lithia). Upon optimisation the balance of the bulk-04 sample was run through the cyclone for downstream testwork and marketing samples.

DMC concentrates were then flagged for heavy mineral recovery testwork employing conventional gravity recovery techniques. Essentially, all heavy minerals, including gangue iron minerals, are proposed to be rejected. As a result, tin and tantalum by-products may be produced with from the gravity tailings, essentially lithia concentrates devoid of additional deleterious elements.

Two parallel programmes were conducted on crushed fines namely heavy mineral recovery and exploratory lithia flotation. While fine lithia recovery via flotation is not slated for inclusion in the DFS and early operations, the characterisation programme was intended to provide early indications of viability and gain an insight into the flotation chemistry of the ore.

Heavy mineral recovery on the fines stream is proposed to be undertaken using several conventional processing concepts including cyclone deslime, spirals, tables and magnetic separation to recover tin and tantalum.

Bulk Sample

A single composite (Bulk-04) comprising of more than 180 intervals was generated based on visual and assay logs providing a 2,000 kg composite.

In order to best represent mining practices, a small percentage of low grade waste was included in the composite. Approximately 3% xenolithic waste material was purposefully added to Bulk-04 to represent worst case dilution associated with such intrusions. In general these intrusions are well distinguishable and massive throughout the orebody and will be selectively mined with ease; the allowance is considered worst case and essentially included to test the impact on product concentrates grades.

Looking Forward

Preliminary flotation testwork is now complete with additional work anticipated after the completion of definitive study activities. Future flotation testwork programmes will be required to generate definitive design data to de-risk the complex process. Testwork investigations require focus on water chemistry, mineral and grinding media chemistry, fine mineral attritioning, reagent testing and critical design data encompassing locked cycle and/or pilot flotation trials.

Initial Carriere de l'Este Metallurgical Results

Samples of high grade pegmatitic material were collected from the downhole intervals noted in Table 3 to produce a 100 kilogramme bulk sample from the diamond drill core held at Carriere de l'Este ("CDL"). The intervals were selected at random from the high grade sections in each of the five holes that intersected the high grade mineralised sections. The core was shipped to Nagrom Laboratories, Perth, Western Australia in December 2019.

One quarter drill core from five diamond drill holes was provided and composited into a singular composite. The composite and associated drill intercepts are presented in Table 3.

Table 3 - CDL Conceptual Testwork Sample & Head Assay (CDL-01)

Drill Hole - Samples			Grade				
Drill Hole ID	From m	To m	Li_2O %	Fe_2O_3 %	SnO_2 %	Ta_2O5 %	Mica %
CD18DD02	75.0	85.00	2.375	0.473	0.077	0.006	0.88
CD18DD03	32.0	42.00					
CD18DD04	65.0	75.00					
CD18DD04	200.0	204.00					
CD18DD05	116.0	126.00					
CD18DD06	51.0	61.00					

After compositing, two 25kg sub-splits of CDL-01 were sent for metallurgical work.

Dense Media Cyclone Separation Testwork - CDL

The primary objective of dense media separation (DMS) testwork is to observe the separation performance of the CDL mineralised material using real world metallurgical devices. Heavy liquid separation procedures provide invaluable characterisation data without the influence of equipment inefficiencies; however, such inefficiencies must be quantified as the project moves to definitive level studies. It was decided to use the DMS unit for CDL testing given the significant body of work already undertaken on the Roche Dure ores of Manono.

Dense Media Cyclone Results

Two DMS100 cyclone runs were initially performed each with differing operational parameters:

1. 5.6 mm: 3-stage separation per size fraction (2) with Mica removal at SG 2.7, 2.95 and 2.95; and
2. 3.35 mm: 3-stage separation per size fraction (2) with Mica removal at SG 2.7, 2.95 and 2.95.

Separation cut-points were guided by early stage Roche Dure testwork which have since been optimised. CDL may see benefit in future work phases by the adjustment of the initial rougher separation from SG 2.7 to 2.8.

Results for each of the campaigns are presented in Table 4-1 and Table 4-2.

Table 4-1 5.6 mm, 100mm 3-Stage Dense Media Cyclone Separation Summary

CDL Size Fraction 5.6 mm	Mass %	Grade Li_2O %	Grade Fe_2O_3 %	Grade SnO_2 %	Grade Ta_2O_5 %	Distribution Li_2O %	Distribution SnO_2 %	Distribution Ta_2O_5 %
- 0.5 mm	14.5	1.76	0.72	0.10	0.008	12	24	23
Mica Removal	3.9	0.45	0.88	0.03	0.003	1	2	2
SG 2.7 Overflow	35.2	0.34	0.27	0.02	0.004	5	12	28
SG 2.95 Overflow	24.2	1.99	0.58	0.05	0.005	22	20	26
SG 2.95 Re-Cleaner Overflow	2.9	3.43	0.68	0.06	0.007	5	3	4
SG 2.95 Underflow (product)	19.2	6.22	0.67	0.12	0.005	55	39	17
Calculated Head	100	2.17	0.52	0.06	0.005	100	100	100

Table 4-2 3.35 mm, 100mm 3-Stage Dense Media Cyclone Separation Summary

CDL Size Fraction 3.35 mm	Mass %	Grade Li_2O %	Grade Fe_2O_3 %	Grade SnO_2 %	Grade Ta_2O_5 %	Distribution Li_2O %	Distribution SnO_2 %	Distribution Ta_2O_5 %
- 0.5 mm	20.0	1.73	0.61	0.09	0.008	16	28	34
Mica Removal	5.0	0.59	0.75	0.03	0.003	1	2	3
SG 2.7 Overflow	27.2	0.23	0.20	0.01	0.002	3	5	12
SG 2.95 Overflow	21.0	1.14	0.48	0.03	0.006	11	10	27
SG 2.95 Re-Cleaner Overflow	3.2	2.26	0.65	0.05	0.007	3	2	5
SG 2.95 Underflow (product)	23.5	6.31	0.64	0.14	0.004	66	52	20
Calculated Head	100	2.23	0.48	0.07	0.005	100	100	100

Lithia losses to fines for the 5.6 and 3.35 mm crush sizes (12% and 16%) are not unexpected for the laboratory control crush method though are expected to increase when translated to industrial sized crushers.

The 5.6mm crush sample returned a product grading 6.2% Li_2O for a total recovery of 55%. The high grade nature of the samples however set an expectation for recoveries greater than 65%.

The 3.35 mm crush sample significantly improved separation returning 66% recovery for a product grade of 6.3% Li_2O.

Dense Media Cyclone Results Analysis

The 5.6mm crush size did not perform as well with the individual product performance presented in Table 4-3.

Table 4-3 5.6mm, 100mm 3-Stage Dense Media Cyclone Separation Summary - Detail

DMS 100 Performance	DMS Cut	Size Fraction	Mass	Grade				Distribution		
				Li_2O	Fe_2O_3	SnO_2	Ta_2O_5	Li_2O	SnO_2	Ta_2O_5
			%	%	%	%	%	%	%	%
CDL1_DMS100-5.6	Recleaner	Coarse	13.0	6.2	0.63	0.08	0.004	55.9	37.2	17.7
	Cleaner		15.3	5.9	0.63	0.08	0.004	62.1	42.0	22.9
	Modelled		14.4	6.0	0.63	0.08	0.004	59.6	40.1	20.8
CDL1_DMS100-5.6	Recleaner	Fine	6.2	6.3	0.75	0.19	0.006	85.9	83.9	42.5
	Cleaner		6.9	5.8	0.74	0.18	0.006	88.6	85.9	48.4
	Modelled		6.6	6.0	0.74	0.18	0.006	87.4	85.0	45.8

The finer fraction (-2+0.5 mm) performed exceptionally, recovering 86% of the lithia to a final product. The average of the cleaner and re-cleaner stage indicated a recovery of more than 87% for a 6% Li_2O product.

However, the coarse fraction (-5.6+2 mm) appears to have performed below expectation (59.6% for 6% Li_2O). Lithia liberation may be the cause, however additional HLS testwork is required to ascertain liberation characteristics to prove or disprove this test. The alternative and more likely case may simply lie in the DMS settings and associated optimisation. Typically, the initial stages of separation remove in excess of 50% of the mass for minimal losses. In the 5.6mm crush case, the second stage (1st cleaner) cyclone rejected what appears to be a high grade (intermediate) stream circa 2.25% Li_2O contributing 30% of the losses for the cyclone stage. It is likely that this cut point was simply too high as a second stage cleaner and required a lower SG cutpoint.

It is foreseeable that an additional 10% recovery benefit can be attained after full DMS100 optimisation. Repeat optimisation work was not conducted on this sample electing to re-treat this intermediate stream after a light re-crush. The results for this test are presented below:

Table 4-4 5.6mm, 100mm 3-Stage Dense Media Cyclone Separation Summary with re-crushed intermediates

CDL	Mass	Grade				Distribution		
Size Fraction 5.6 mm intermediates recrushed to 3.35 mm	%	Li_2O %	Fe_2O_3 %	SnO_2 %	Ta_2O_5 %	Li_2O %	SnO_2 %	Ta_2O_5 %
- 0.5 mm	16.5	1.80	0.72	0.09	0.000	14	27	27
Mica Removal	3.9	0.45	0.88	0.03	0.000	1	2	2
SG 2.7 Overflow	39.8	0.35	0.28	0.02	0.000	6	14	31
SG 2.95 Overflow	8.3	1.66	0.61	0.04	0.004	6	6	10
SG 2.95 Re-Cleaner Overflow	5.9	1.23	0.54	0.03	0.000	3	4	4
SG 2.95 Underflow (product)	25.6	5.9	0.66	0.11	0.000	69	48	25
Calculated Head	100	2.17	0.52	0.06	0.000	100	100	100

The re-crushed intermediates certainly benefited from additional liberation with a combined DMS performance yielding a 5.9% Li_2O product for 69% recovery. It is however inconclusive given the DMS settings may not be fully optimised.

Looking Forward

This bench scale DMS100 test programme indicates the CDL material appears to be behaving in a similar fashion to Roche Dure and the higher head grade is reporting as a higher lithia value in the concentates. Further work is required including:-

- Heavy liquid separation and crush size optimisation;
- Improved DMS settings and cyclone performance, trial runs at rougher SG's up to 2.8 to reject maximum mass before cleaning;
- HPGR crushing - while the HPGR produces more fines than a typical control crush in the lab, the HPGR breakage is more typical of operations. Here the 5.6 mm crush will certainly produce more product in the liberated zone as opposed to a bias toward the coarser end (lab crush produces steep particle size distribution); and
- The starting point for crush size optimisation work appears to be on point circa 3.35 to 5.6mm. The Manono Project DFS caters for a finer crush to 3.35mm ensuring a capability to treat all orebodies.

The Phase 2 - DFS metallurgical test programme at Roche Dure caters for a crush size of 3.35mm which ensures that the CDL material, from the initial results reported here could possibly be used as a high grade blend feedstock through the Roche Dure plant. Whilst further work is required, and if confirmed, this material could be used to maximise the lithium content in the final SC product resulting in increased efficiencies in areas such as power consumption and transport.

Additional studies into the possibility of producing an intermediate high grade value added product, such as lithium sulphate, which is a precursor to manufacturing lithium hydroxide, are underway. The high grade concentrate that could be produced from CDL would be an ideal feedstock for a lithium sulphate plant, as it would require less tonnes to produce a benchmarked product and at an approximate 6 to 1 ratio of ore to product would result in significant reduction on transport costs.

This release was authorised by Nigel Ferguson, Managing Director of AVZ Minerals Limited.

For further information, visit www.avzminerals.com.au or contact:

Mr. Leonard Math
Company Secretary
AVZ Minerals Limited
Phone: +61 8 6117 9397
Email: admin@avzminerals.com.au

Media Enquiries:
Mr. Peter Harris
Peter Harris & Associates
Phone: +61 (0) 412 124 833

Competent Persons Statement

The information in this report that relates to metallurgical test work results is based on, and fairly represents information complied and reviewed by Mr Nigel Ferguson, a Competent Person who is a Fellow of The Australasian Institute of Mining and Metallurgy and Member of the Australian Institute of Geoscientists. Mr Ferguson is a Director of AVZ Minerals Limited. Mr Ferguson has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resource and Ore Reserves". Mr Ferguson consents to the inclusion in this report of the matters based on this information in the form and context in which it appears.

JORC TABLE 1

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.*	• Metallurgical samples: Comminution testwork consisting UCS, Bond Indices, SMC and Impact testing were conducted on Comm 1, Comm 2 and Comm 3. Comm1 sample representing the upper zone ore and Comm 2 and Comm 3 representing middle and deeper sections in the ore zone. • These samples consisted of continuous intervals of full PQ core and include spodumene containing and waste intervals identified from core logging records. • Specifically Comm 1 sample consists of approximately 15m from Met01, Comm 2 sample approximately 15m from Met02 and Comm 3 sample approximately 15m from Met03. • Comm sample weights were each 115kg. • Metallurgical samples: Spodumene concentrate testwork to date has been conducted using a single bulk composite, Bulk01, 200kg mass. • This composite was prepared from sub-samples of crushed intervals of full PQ drill core. Each approximate 1m interval was crushed to 25mm with a sub-sample submitted for analysis and a further sub-sample collected for the composite. Th final Bulk01 composite sample contained low gade and high grade intervals as well as waste intervals from 4 of the 5 met holes to target a grade close to expected mining lithium grade. • Specifically Bulk01 contains sub-samples from intervals originating from Met01, Met02, Met,03 and Met04. • All met hole core intervals were shipped to Nagrom laboratories in Australia. From here core has been shipped to ALS laboratories, Australia. • HLS test results reported in this release were conducted on sub-samples of Bulk01 with a head grade of 1.58% Li_2O. • Head grades have a reporting accuracy of ±0.1%.
Drilling techniques	• *Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	• The drilling was completed using diamond drilling rigs with PQ used from surface to sample through weathered to fresh-rock and HQ sized drill rods used after the top-of-fresh-rock had been intersected. Most holes are angled between 50° and 75°. All collars were surveyed after completion. All holes were downhole surveyed using a digital multi-shot camera at about 30 m intervals. Apart from drillholes MO17DD001, MO17DD002, MO18DD001 and MO18DD008, all cores were orientated.

Criteria	JORC Code explanation	Commentary
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	• Drill core recovery attained >99% in the pegmatite. • Based upon the high recovery, AVZ did not have to implement additional measures to improve sample recovery and the drill core is considered representative and fit for sampling. • For the vast majority of drilling completed, core recovery was near 100% and there is no sample bias due to preferential loss or gain of fine or coarse material.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• Drillhole cores were logged by qualified geologists using a data-logger and the logs were then uploaded into Geobank which is a part of the Micromine software system. The cores were logged for geology and geotechnical properties (RQD & planar orientations). A complete copy of the data is held by an independent consultant. The parameters recorded in the logging are adequate to support appropriate Mineral Resource estimation. • All cores were logged, and logging was by qualitative (lithology) and quantitative (RQD and structural features) methods. All cores were also photographed both in dry and wet states, with the photographs stored in the database. • The entire length of all drillholes were logged for geological, mineralogical and geotechnical data.

Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• Cores were cut longitudinally in half and sampled at a nominal 1 m length. • All the exploration drilling was carried out using diamond core drilling. • The sample preparation for drillhole core samples incorporates standard industry practice. The half-core samples were prepared at ALS Lubumbashi and the ALS sample preparation facility on site at Manono, with holes from MO18DD021 onwards being prepared at Manono. • At AVZ's onsite sample preparation facility the half-core samples of approximately 4-5 kg are oven dried, crushed to -2 mm with a 500 g sub-sample being split off. This 500 g sub-sample is then pulverised to produce a pulp with 85% passing -75um size fraction. A 120 g subsample is then split from this. The certified reference material, blank and duplicate samples are inserted at appropriate intervals and then the complete sample batch is couriered to Australia for analysis. • Standard sub-sampling procedures are utilised by ALS Lubumbashi and ALS Manono at all stages of sample preparation such that each sub-sample split is representative of the whole it was derived from. • Duplicate sampling was undertaken for the drilling programme. After half-core samples were crushed at the ALS Lubumbashi and ALS Manono preparatory facility, an AVZ geologist took a split of the crushed sample which was utilised as a field duplicate. The geologist placed the split into a pre-numbered bag which was then inserted into the sample stream. It was then processed further, along with all the other samples. The drilling produced PQ and HQ drill core, providing a representative sample of the pegmatite which is coarse-grained. Sampling was mostly at 1 m intervals, and the submitted half-core samples typically had a mass of 3-4 kg.

Criteria	JORC Code explanation	Commentary
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.*	• Diamond drillhole (core) samples were submitted to ALS Lubumbashi and ALS Manono (DRC) where they were crushed and pulverised to produce pulps. These pulps were couriered to Australia and analysed by ALS Laboratories in Perth, Western Australia using a sodium peroxide fusion of a 5g charge followed by digestion of the prill using dilute hydrochloric acid thence determination by AES or MS, i.e. methods ME-ICP89 and ME-MS91. Samples from the drilling completed in 2017 i.e. MO17DD001 and MO17DD002, were assayed for a suite of 24 elements that included Li, Sn, Ta & Nb. Samples from the drilling completed in 2018 were assayed for a suite of 12 elements; Li, Sn, Ta, Nb, Al, Si, K, Fe, Mg, P, Th and U, with Li reported as Li_2O, Al as Al_2O_3, Si as SiO_2, K as K_2O, Mg as MgO, Fe as Fe_2O_3 and P as P_2O_5. • Peroxide fusion results in the complete digestion of the sample into a molten flux. As fusion digestions are more aggressive than acid digestion methods, they are suitable for many refractory, difficult-to-dissolve minerals such as chromite, ilmenite, spinel, cassiterite and minerals of the tantalum-tungsten solid solution series. They also provide a more-complete digestion of some silicate mineral species and are considered to provide the most reliable determinations of lithium mineralisation. • Sodium peroxide fusion is a total digest and considered the preferred method of assaying pegmatite samples. • For the drilling, AVZ incorporated standard QAQC procedures to monitor the precision, accuracy and general reliability of all assay results from assays of drilling samples. As part of AVZ's sampling protocol, CRMs (standards), blanks and duplicates were inserted into the sampling stream. In addition, the laboratory (ALS Perth) incorporated its own internal QAQC procedures to monitor its assay results prior to release of results to AVZ. The Competent Person is satisfied that the results of the QAQC are acceptable and that the assay data from ALS is suitable for Mineral Resource estimation. • AVZ utilised Nagrom in Perth for external laboratory checks to compare results received from ALS Perth. The Competent Person is satisfied that the results from the umpire laboratory are acceptable and that the assay data from ALS is suitable for Mineral Resource estimation. • Geophysical instruments were not used in assessing the mineralisation.

Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• MSA observed the mineralisation in the majority of cores on site, although no check assaying was completed by MSA. • MSA observed and photographed several collar positions in the field, along with rigs that were drilling at the time of the site visit. • Twinned holes for the verification of historical drilling, were not required. Short vertical historical holes were drilled within the pit but are neither accessible nor included within the database used to define the Mineral Resource. • Drilling data is stored on site as both hard and soft copy. Drilling data is validated onsite before being sent to data management consultants in Perth where the data is further validated. When results are received they are loaded to the central database in Perth and shared with various stakeholders via the cloud. QC results are reviewed by both independent consultants and AVZ personnel at Manono. Hard copies of assay certificates are stored in AVZ's Perth offices. • AVZ has not adjusted any assay data.
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• The drillhole collars have been located by a registered surveyor using a Hi-Target V30 Trimble differential GPS with an accuracy of +/- 0.02 m. • All holes were downhole surveyed using a digital multi-shot camera at approximately 30 m intervals, except MET02 and MET03 which were drilled vertically. • AVZ provided high resolution topographic contours, surveyed at 50 cm elevation differences. . • For the purposes of geological modelling and estimation, the drillhole collars were projected onto this topographic surface. In most cases adjustments were within 1 m (in elevation). • Coordinates are relative to WGS 84 UTM Zone 35M.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	• Drillhole were completed on sections 100 m apart, and collars were 50 to 100 m apart on section where possible. In situations of difficult terrain, multiple holes were drilled from a single drill pad using differing angles for each drillhole. • In the Competent Person's opinion, the spacing is sufficient to establish geological and grade continuity consistent with Measured, Indicated and Inferred Mineral Resources. • Samples were composited to 1 m intervals, since it was the most occurring sample length.

Criteria	JORC Code explanation	Commentary
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	• The drillhole orientation was designed to intersect the Roche Dure Pegmatite at, or nearly at, 90° to the plane of the pegmatite. • No material sampling bias exists due to drilling direction.
Sample security	• *The measures taken to ensure sample security.*	• When utilizing ALS Lubumbashi, chain of custody was maintained by AVZ personnel on-site to Lubumbashi. Samples were stored on-site until they were delivered by AVZ personnel in sealed bags to the laboratory at ALS in Lubumbashi. The ALS laboratory checked the received samples against the sample dispatch form and issued a reconciliation report. • At Lubumbashi, the prepared samples (pulps) were sealed in a box and delivered by DHL to ALS Perth. • ALS issued a reconciliation of each sample batch, actual received vs documented dispatch. • The ALS Manono site preparation facility was managed indepedently by ALS who supervised the sample preparation. Prepared samples were sealed in boxes and transported by air to ALS Lubumbashi and were accompanied by an AVZ employee, where export documentation and formalities were concluded. DHL couriered the samples to ALS in Perth.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• The sampling techniques were reviewed by the Competent Person during the site visit. • The Competent Person considers that the exploration work conducted by AVZ was carried out using appropriate techniques for the style of mineralisation at Roche Dure, and that the resulting database is suitable for Mineral Resource estimation.

Section 2 Reporting of Exploration Results

(Criteria listed in the previous section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• The Manono licence was awarded as Research Permit PR13359, issued on the 28th December 2016 to La Congolaise d'Exploitation Miniere SA (Cominiere). It is valid for 5 years. On the 2nd February 2017, AVZ formed a joint-venture (JV) with Cominiere and Dathomir Mining Resources SARL (Dathomir) to become the majority partner in a JV aiming to explore and develop the pegmatites contained within PR 13359. Ownership of the Manono Lithium Project is AVZ 60%, Cominiere 30% and Dathomir 10%. • All indigenous title is cleared and there are no other known historical or environmentally sensitive areas.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Within PR13359, exploration of relevance was undertaken by Gecamines which completed a programme of drilling between 1949 and 1951. The drilling consisted of 42 vertical holes drilled to a general depth of around 50 - 60 m. Drilling was carried out on 12 sections at irregular intervals ranging from 50 - 300 m, and over a strike length of some 1,100 m. Drill spacing on the sections varied from 50 - 100 m. The drilling occurred in the Roche Dure Pit only, targeting the fresh pegmatite in the Kitotolo sector of the project area. • The licence area has previously been mined for tin and tantalum through a series of open pits over a total length of approximately 10 km excavated by Zairetain SPRL. More than 60 Mt of material was mined from three major pits and several subsidiary pits focused on the weathered upper portions of the pegmatites. Ore was crushed and then upgraded through gravity separation to produce a concentrate of a reported 72% Sn. There are no reliable records available of tantalum or lithium recovery as tin was the primary mineral being recovered. • Apart from the mining excavations and the drilling programme, there has been very limited exploration work within the Manono region.

Criteria	JORC Code explanation	Commentary
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The Project lies within the mid-Proterozoic Kibaran Belt - an intracratonic domain, stretching for over 1,000 km through Katanga and into southwest Uganda. The belt strikes predominantly SW-NE and is truncated by the N-S to NNW-SSE trending Western Rift system. The Kibaran Belt is comprised of 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 950 million years ago) is assigned to the Katangan cycle and is associated with widespread vein and pegmatite mineralisation containing tin, tungsten, tantalum, niobium, lithium and beryllium. Deposits of this type occur as clusters and are widespread throughout the Kibaran terrain. In the DRC, the Katanga Tin Belt stretches over 500 km from near Kolwezi in the southwest to Kalemie in the northeast comprising numerous occurrences and deposits of which the Manono deposit is the largest. The geology of the Manono area is poorly documented and no reliable maps of local geology were observed. Recent mapping by AVZ has augmented the overview provided by Bassot and Morio (1989) and has led to the following description. The Manono Project pegmatites are hosted by a series of mica schists and by amphibolite in some locations. These host rocks have a steeply dipping penetrative foliation that appears to be parallel to bedding. There are numerous bodies of pegmatite, the largest of which have sub-horizontal to moderate dips, with dip direction being towards the southeast. The pegmatites post-date metamorphism, with all primary igneous textures intact. They cross-cut the host rocks but despite their large size, the contact deformation and metasomatism of the host rocks by the intrusion of the pegmatites seems minor. The absence of significant deformation of the schistosity of the host rocks implies that the pegmatites intruded brittle rocks. The pegmatites constitute a pegmatite swarm in which the largest pegmatites have an apparent en-echelon arrangement in a linear zone more than 12 km long. The pegmatites are exposed in two areas; Manono in the northeast, and Kitotolo in the southwest. These areas are separated by a 2.5 km section of alluvium-filled floodplain which contains Lake Lukushi. At least one large pegmatite extends beneath the floodplain. The pegmatites are members of the LCT-Rare Element group of pegmatites and within the pegmatite swarm there are LCT albite-spodumene pegmatites and LCT Complex (spodumene sub-type) pegmatites.

Criteria	JORC Code explanation	Commentary
Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* o *easting and northing of the drill hole collar* o *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* o *dip and azimuth of the hole* o *down hole length and interception depth* o *hole length.* • *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	• See table in Appendix 1.
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• Exploration Results are not reported, therefore no data was aggregated for reporting purposes. • No equivalent values are used or reported.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').*	• Exploration Results are not reported. • There is no relationship between mineralisation width and grade. • The geometry of the mineralisation is reasonably well understood however the pegmatite is not of uniform thickness nor orientation. Consequently, most drilling intersections do not represent the exact true thickness of the intersected pegmatite, although intersections are reasonably close to true thickness in most cases.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	• The relevant plans and sections are included in this document and in Appendix 2.
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	• Exploration Results are not reported.
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	• No other exploration data is available.

Criteria	JORC Code explanation	Commentary
Further work	• *The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Diamond drill testing beneath the pit will be carried once the pit has been drained of water. • Further mining studies are planned.