

# AVZ produces outstanding "high grade" cassiterite concentrate from alluvial material

### Highlights

- Metallurgical test work completed on two alluvial composite samples bearing tin and tantalum from the Manono Lithium and Tin Project
- Effective liberation and separation show amenability to conventional metallurgical processing methods for Tin and Tantalum
- A high grade, low impurity cassiterite concentrate can be produced grading 71.7% to 73.2% Sn (equates to 91% to 93% cassiterite)
- A separate high-grade tantalum product of between 17% to 21% Ta<sub>2</sub>O<sub>5</sub> was also produced
- Tantalum product streams are predominantly coltan (columbite-tantalite) returning niobium grades of between 17% to 21%  $Nb_2O_5$
- Tantalum product recoveries are between 62% to 67%, however a high proportion (20% to 31%) of tantalum and niobium reports to the cassiterite product stream which is expected to attract additional credits from tin smelters

**AVZ Minerals Limited** (ASX: AVZ, or "the Company") is pleased to provide an update on its beneficiation test work program from artisanal heavy mineral concentrates sourced from its Manono Lithium and Tin Project ("Manono Project") in the Democratic Republic of Congo.

**AVZ's Managing Director, Mr. Nigel Ferguson,** said: "The Company has been 100% focussed on developing the hard rock assets of the Manono Project and presenting the recently completed Definitive Feasibility Study.

Some test work on the substantial Manono alluvial tin fields was able to be included in the DFS, however, we purposely left any detailed work on the alluvial tin fields until a later stage in the project.

## ASX ANNOUNCEMENT

29 April 2020

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We have previously announced some encouraging results from our alluvial test work program but this latest set of results are simply outstanding with regards to recovery of not only Tin but Tantalum and Niobium.

Given the excellent results reported from our first two composite samples, the Company will now embark on more detailed test work programs to define the potential benefit of metals within the alluvial fields at Manono and what they can add to the project revenue stream.

Gross revenue in the DFS, included that from alluvial tin contributes approximately US\$126M over life of mine and is a conservative 0.8% of the total gross revenue of US\$15.242 Billion LOM<sup>1</sup>.

Given the excellent results announced today, the Company will now look to maximise these potential revenue streams including any potential revenue credits from recovered tantalum and niobium and will also investigate a process flow sheet inclusive of a furnace for the production of tin and tantalum ingots on site."

# Metallurgical Test Work Summary

This metallurgical update presents results from a metallurgical test programme designed to assess a conceptual process flowsheet for the treatment of alluvial tin and tantalum minerals from Manono. The programme employed conventional metallurgical processes specifically targeted to separate tantalum minerals, predominantly Coltan from the tin, which resides entirely as cassiterite.

#### Samples

Two master composites (Comp\_A and Comp\_B) were prepared using hand selected artisanal concentrate samples from six alluvial zones across the Manono licence. Table 1 provides the sample composition used for the alluvial tin and tantalum beneficiation testwork.

Table 1. Alluvial Composite Samples

	Mass		Grade						
Alluvial Beneficiation Testwork Sample Composition	Proportion	SnO <sub>2</sub>	Ta <sub>2</sub> O <sub>5</sub>	Nb <sub>2</sub> O <sub>5</sub>	Fe <sub>2</sub> O <sub>3</sub>	Mn	TiO <sub>2</sub>	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>
Sample composition	%	%	%	%	%	%	%	%	%
	Composite A (Comp_A)								
Kahungwe	44	41.7	3.1	3.1	16.6	1.1	7.3	18.3	5.7
Malata	22	53.8	4.2	2.7	6.3	1.2	1.5	18.6	7.7
Heavy Engineering Workshop	34	29.5	2.1	2.3	39.3	0.9	2.7	14.8	6.7
Comp_A	100	40.2	3.0	2.7	22.0	1.0	4.5	17.2	6.5
Composite B (Comp_B)									
Coltan Hill	8	69.6	3.0	2.2	9.5	1.1	0.4	9.6	2.8
Kitotolo-Mpete	43	54.6	3.2	3.1	11.2	1.1	4.5	14.8	4.6
Kitotolo-Mango Road	48	71.5	2.8	2.4	2.6	0.5	1.6	12.7	3.4
Comp_B	100	64.0	3.0	2.7	6.9	0.8	2.7	13.3	3.9

<sup>&</sup>lt;sup>1</sup> Refer to the ASX announcement on 21 April 2020 titled "AVZ Delivers Highly Positive DFS for Manono Project". Please refer to the Cautionary Statement and Forward Looking Statements in relation to the Definitive Feasibility Study results. AVZ confirms that all the material assumptions underpinning the production target, or the forecast financial information derived from a production target, in the initial public report referred to continue to apply and have not materially changed.

#### Scope of Test Work

A broad overview of the alluvial beneficiation testwork programme is presented in Figure 1 below.

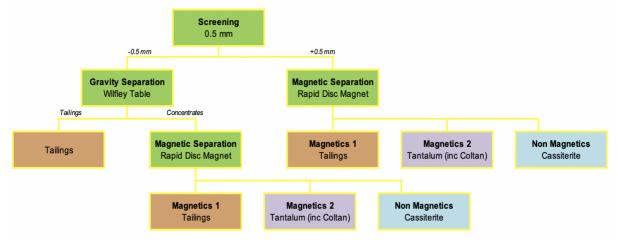


Figure 1. Metallurgical Test Work Programme - Alluvials

The two composite samples were screened at 0.5mm with the high-grade products residing in the coarser (+0.5mm) fraction. The coarse fraction was then sent for magnetic separation and conducted at two different magnetic intensities. The low intensity magnetic stream contains predominantly iron bearing waste minerals, such as haematite, while the high intensity stream contains tantalite, columbite and other tantalum bearing minerals. Cassiterite, if well liberated, reports to the non-magnetic stream.

The finer fraction (-0.5mm) reported for a gravity separation step to remove low density gangue minerals before undergoing the same magnetic separation process.

The broad intent of the metallurgical programme was to prove the amenability of conventional, low cost process equipment to separate tin and tantalum products which offer maximum value when sold as individual product streams.

#### **Testwork Results**

Table 2 presents test results for the tin and tantalum beneficiation testwork.

**Product Stream** Distribution Grade Fe<sub>2</sub>O<sub>3</sub>  $SnO_2$  $Ta_2O_5$  $SnO_2$ Sn Ta<sub>2</sub>O<sub>5</sub>  $Nb_2O_5$ Mn S P PbO TiO<sub>2</sub> % % % % % % % % % % % **Composite A** Tin 0.01 0.00 87.9 19.8 91.0 71.70 1.6 0.5 0.5 0.1 0.02 0.63 Tantalum 8.50 **17.6** 18.0 0.05 0.18 4.03 3.3 67.2 10.8 17.3 5.1 0.17 **Composite B** Tin 95.4 30.8 93.0 73.25 1.3 0.9 0.5 0.1 0.02 0.00 0.05 0.50 5.49 Tantalum 0.6 61.9 4.8 3.79 20.5 20.8 15.5 5.7 0.05 0.24 0.14

Table 2 - Alluvial Composite Beneficiation Products

#### The results indicate:

- Well liberated tin and tantalum minerals enabling effective separation using conventional magnetic separation;
- From both low (Comp\_A) and high (Comp\_B) grade cassiterite samples, a high grade-low impurity cassiterite concentrate can be produced bearing 91% to 93% cassiterite (respectively);
- In the process of upgrading the cassiterite concentrate, a high-grade tantalum stream bearing 17% to 21% Ta<sub>2</sub>O<sub>5</sub> can be produced, which is considered an ideal saleable grade;
- Tantalum product streams are predominantly coltan (columbite-tantalite) which comes with niobium grades circa 17% to 21% (1:1 Ta<sub>2</sub>O<sub>5</sub> to Nb<sub>2</sub>O<sub>5</sub>);
- Tantalum product streams yield recoveries from 62% to 67% however a high proportion (20% to 31%) of tantalum and niobium reports to the cassiterite stream which may attract additional credits from tin smelters.

#### **Program Forward**

Behre Dolbear<sup>1</sup> stated, on the matter of alluvial tin potential, "The Lukushi alluvial flat is located immediately to the north and downstream of the main pegmatite deposit. The alluvial flat is approximately 7km long and 2km wide (Figure 1). The Lukushi River discharges from the Lukushi Dam and passes through the alluvial flats. It is up to 20m wide. The deposit was probably formed by the reworking of previous eluvial/alluvial formations located in the vicinity of the main pegmatite deposit.

The Lukushi alluvial mineralization comprise a lower section (Block A) which was prospected during the 1930s and an upper section (Block B) where most of the exploration results have been lost.

Block B was evaluated by 209 pits completed along six lines 800m apart. The results indicate an average thickness of 2.96m of barren overburden and potential tin mineralised thickness of 4.4m.

The upstream block (B) was apparently slightly higher grade than block (A).

OCP Alluvials, 1981, reviewed the available test pit data and concluded that the ore-bearing gravels occur in regular beds varying in thickness from 3m to 10m, comprising sand and well-rounded pebbles with sizes up to 15cm. They considered the Lukushi alluvials were readily amenable to excavation and treatment by bucket-ladder dredge and proposed a mining rate of 4 Mm³ per year, which would have provided a 29% return on capital of US\$10 million. This operation would have been dependent on infrastructure available at the time, including electricity supply of 1.4 MW from the hydro-electric station."

<sup>&</sup>lt;sup>1</sup> Behre Dolbear "Review of the Manono tin-tantalum-lithium project in the DRC for Global Tin Copration" July 2011

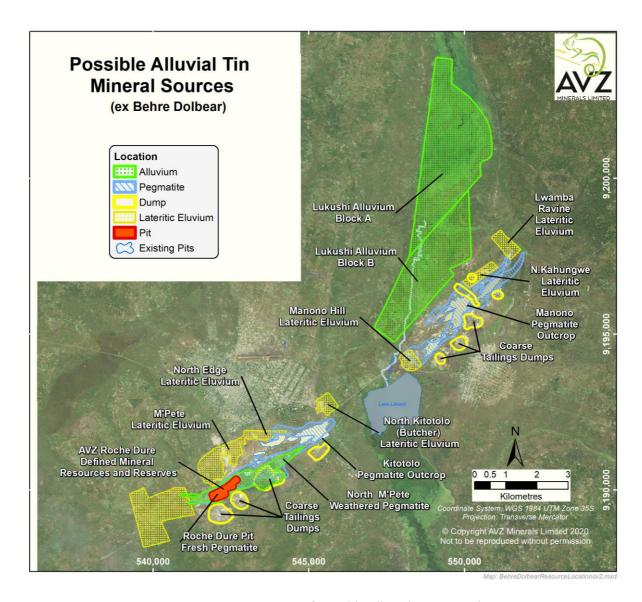


Figure 1: Manono: Location of Possible Alluvial Tin Mineral Sources

Given the excellent recovery test work and purity of this product and the historically noted potential, the Company is planning a broader investigation into obtaining representative materials from the extensive alluvial fields as defined by previous explorers and current artisanal mining operations.

Investigation will also be undertaken into beneficiation of the concentrates into ingots through establishing a furnace at Manono, such as was present on site during previous tin operations.

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

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#### **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.

# **APPENDIX 1. Alluvial Sample Register with Assay Results**

Sample ID	Sample Method	Easting (mE)	Northing (mN)	Elevation (m)	Zone	SnO <sub>2</sub> %	Ta <sub>2</sub> O <sub>5</sub> %	Rock Type	Comments
MK Comp	Panned concentrate	551500	9197650	626	35 S	41.7	3.1	Weathered pegmatite	Seived from surface alluvium
MM Comp	Panned concentrate	549600	9196150	611	35 S	53.8	4.2	Weathered pegmatite	Seived from surface alluvium
MW Comp	Panned concentrate	548250	9194900	609	35 S	29.5	2.1	Weathered pegmatite	Seived from surface alluvium
MCH Comp	Panned concentrate	547890	9194250	611	35 S	69.6	3.0	Weathered pegmatite	Seived from surface alluvium
KMP Comp	Panned concentrate	543300	9191560	634	35 S	54.6	3.2	Weathered pegmatite	Seived from surface alluvium
KMR Comp	Panned concentrate	543300	9191560	645	35 S	71.5	2.8	Weathered pegmatite	Seived from surface alluvium

# **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	<ul> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>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.</li> </ul>	<ul> <li>The samples are reconnaissance panned heavy concentrate samples taken from 6 widely spaced locations then combined to create a non-representatrive sample form each area. The samples are of panned heavy minerals concentrates and all are samples of mixed metal oxides of different sizes with varying amounts of entrained gangue material.</li> <li>The samples were collected from 6 areas ranging in size from between 100m2 and 200m2 then combined to create a sample from each area.</li> <li>These samples are not representative and were collected to examine the elemental make up, and mineralogy of, the heavy minerals recovered.</li> <li>The collection of the heavy mineral samples was done by a combination of sieving using sluice boxes then panning off the heavy mineral concentrates. This collection method is typical for this type of reconnaissance style sampling and this information will not form part of a volumetric analysis.</li> <li>All samples were shipped direct;ly to Nagrom laboratories in Australia.</li> <li>Head grades have a reporting accuracy of ±0.1%.</li> </ul>
Drilling techniques	<ul> <li>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).</li> </ul>	N/A: This information release does not discuss drilling results.
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	N/A: This information release does not discuss drilling results.
Logging	<ul> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	N/A: This information release does not discuss drilling results.  There was no logging of the heavy minerals in the field because the heavy minerals, both cassiterite and coltan (tantalum/niobium) and some gangue minerals such as iron oxides are black and at small size fractions are indistinguishable to the naked eye.

Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>All samples were collected using water to concentrate them then put into sample bags at the collection point. Prior to transportation the samples were air dried.</li> <li>The samples are typical in that all of the samples present as a fine grained 'black' sand and this is the usual presentation of the alluvial / elluvial heavy minerals retrieved from weathered parts of the pegmatite at Manono.</li> <li>The sample weights varied in size from 3.2 to 16.9 kilogrammes which is sufficient to carry out mineral identification testwork and assays.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>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.</li> </ul>	<ul> <li>The 6 seived samples were packed by AVZ personnel in Manono then sent by DHL courier direct to the Nagrom Laboratories in Perth, Western Australia for constituent analyses (XRD) and assay.</li> <li>At Nagrom the samples were dried and homogenised with a portion of each being sent for individual XRD analysis. The samples were not crushed.</li> <li>All samples were analysed using ICP, XRF and ISE for Li2O, Fe2O3, Al2O3, SiO2, TiO2, Mn, S, P, SnO2, Ta2O5, Nb2O5, PbO, CaO, MgO, K2O, Rb, F and LOI1000. All samples were assayed using the Full ICP for Ag, Al, As, Au, Ba, Be, Bi, Ca, Cd, Ce, Co, Cr, Cs, Cu, Dy, Er, Eu, Fe, Ga, Gd, Hf, Ho, In, K, La, Li, Lu, Mg, Mn, Mo, Na, Nd, Ni, P, Pb, Pr, Rb, Re, Sb, Sc, S, Si, Sm, Sn, Sr, Ta, Tb, Te, Th, Ti, TI, Tm, U, V, W, Y, Yb, Zn and Zr.</li> <li>Geophysical instruments were not used in assessing the mineralisation.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	AVZ has not adjusted any assay data.
Location of data points	<ul> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	The sample locations are general with the samples being collected from areas rather than discrete sample points. The rough centres of the collection points are summarised in Appendix 1.

Criteria	JORC Code explanation	Commentary
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	The samples were not collected on a regular pattern.  Several samples were taken from each of the 6 main areas and composited together to form a bulk sample with enough material to carry out the elemental and mineralogical analyses. It was thought that the area being sampled may have elemental differences specific to the chemistry of the underlying pegmatite.
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	N/A
Sample security	The measures taken to ensure sample security.	The chain of custody was maintained by AVZ personnel from site to Lubumbashi. Samples were stored on-site until they were delivered by AVZ personnel in sealed bags to DHL in Lubumbashi and from there direct to Nagrom Laboratories in Perth. Nagrom checked the received samples against the sample dispatch form and issued a reconciliation report.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	The sampling techniques were personally supervised by the site senior geologist. The senior geologist considers that the sampling work conducted by AVZ was carried out using appropriate techniques for heavy mineral collection but that the results are not suitable for Mineral Resource estimation. The Compertent Person reviewed the process and considered the sampling work conducted by AVZ is appropriate for the intention of the program and assay determination completed and that the results are not 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	<ul> <li>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.</li> <li>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.</li> </ul>	The Manono licence was awarded as Research Permit PR13359, issued on the 28 <sup>th</sup> December 2016 to La Congolaise d'Exploitation Miniere SA (Cominiere). It is valid for 5 years. On the 2 <sup>nd</sup> 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 25% and Dathomir 15%.  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 are exposed in two areas; Manono in the northeast, and Kitotolo in the southwest. These areas are separated by a 2.5

Criteria	JORC Code explanation	Commentary
Drill hole Information	<ul> <li>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:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>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.</li> </ul>	N/A: This information release does not discuss drilling results.
Data aggregation methods	<ul> <li>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.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	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	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>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').</li> </ul>	Drilling Results are not reported.  This is a first pass reconnaissance sampling exercise designed to identify the type of minerals that may be found at discrete geographical locations in order for future sampling programmes to be designed.
Diagrams	<ul> <li>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.</li> </ul>	Drilling Results are not applicable.
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.	Drilling Results are not applicable.

Criteria	JORC Code explanation	Commentary
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.
Further work	<ul> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	The 6 individual composite samples will be combined into 2 bulk composite samples in order to provide sufficient mineralised material to examine for further physical characteristics including but not limited to magnetic and electrostatic responses as well as possible separation techniques.  Once the mineral types are identified, and the nature of their distribution understood better, further exploration work can be planned.