



ASX ANNOUNCEMENT

9 October 2020

Manono Lithium and Tin Project Operational Update

Highlights:

- Pit floor drilling program commences to potentially upgrade some Inferred Resources to Indicated Resources
- New Ore Reserves to be generated from updated mine design
- Geotechnical site investigation of plant site underway
- Site for tailings storage facility confirmed and geotechnical sampling program commenced
- Phase 2 hydrogeological modelling field program commenced

AVZ Minerals Limited (ASX:AVZ or “the Company”) is pleased to advise that planned drilling has commenced at its flagship project, the Manono Lithium and Tin Project (“Manono Project”).

Pit Floor Drilling – The “Wedge”

Geological diamond core resource drilling has recommenced on the Roche Dure pit floor after COVID-19 travel restrictions to the Democratic Republic of Congo (“DRC”) were lifted in mid-September (Figure 1). Ten new geological resource holes for 1,700m of diamond drilling will be conducted during the next four weeks.



Figure 1. Rig 4 on drillhole MO20DD002

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Market Cap

\$221 M

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Previous drilling at Roche Dure has defined more than 400mt of potential ore at an average grade of 1.65% Li₂O (*Refer to ASX Announcement dated 8 May 2019: Significant Upgrade in Measured and Indicated Mineral Resource*) but the material immediately below the then water filled open pit could not be accessed physically and therefore remained at an Inferred Resource category. This means the pit floor rock could not be considered as mineable ore in the existing mine plan. It is expected that some of the pegmatite may be upgraded to an Indicated Resource / Probable Reserve status by drilling this previously inaccessible area. The updated geological resource is not expected to increase overall resource tonnes but the current combined Indicated and Measured Resource tonnage is expected to increase. Assay results are expected in November 2020 if the drilling can be completed by the end of October 2020.

Updating the mine plan

Once the ‘wedge’ material directly under the pit floor is drilled and assay results returned, it is expected that some of this previously classified waste rock may then report as mineable ore. This new data will allow the existing mine design to be re-run and optimised. There will be positive advantages from this work being undertaken with the most obvious being that two years of potential pre-stripping will be avoided and the payback period for financing will be positively impacted pro-rata.

The re-run of the mine design, following the upgrade of the geological resource estimate towards the end of the year, will also allow for plant design optimisation studies, highlighted in the published Definitive Feasibility Study, to also be completed and incorporated into the new modelling.

Consequently, a new Ore Reserves Estimate and financial model will be generated based on the revised mine design, which are expected to be published towards the end of December 2020.

Plant Site Geotechnical Program

As part of the pre-production planning, AVZ recently received survey information over the plant site, coupled with updated site design work has allowed “fine tuning” of the final location of the plant site. This has allowed planning of the plant site geotechnical investigation program and the siting of 38 new test pits and nine geotechnical boreholes sighted under significant weight bearing locations (Figure 2). PQ sized diamond core from the nine holes will be sent to a specialist geotechnical laboratory in Johannesburg for an array of specialist load bearing strength tests. This data will allow for detailed planning of the future earthworks program for construction of the new plant site.

Tailings Storage Facility (TSF) Update

A technical decision has been made to optimise the storage of future mine tailings by placing them inside the waste rock dump to the west of the Roche Dure open pit (Figure 3). The advantages of this design, which is commonly adopted in Australia and known as an Integrated Waste Landform (IWL) are several but include minimising land disturbance by storing the tailings inside a rock barrier, increased stability of the overall TSF, substantial savings on dam wall construction and ease of future rehabilitation.

Five locations within the IWL footprint have been selected for geotechnical drilling to be conducted, to examine the underlying soil and rock properties of the proposed site (Figure 3) and these investigative drillholes will be completed as part of the overall plant site geotechnical investigation to be completed in the next few weeks. Samples from these boreholes will be sent to the specialist lab in South Africa for testing.

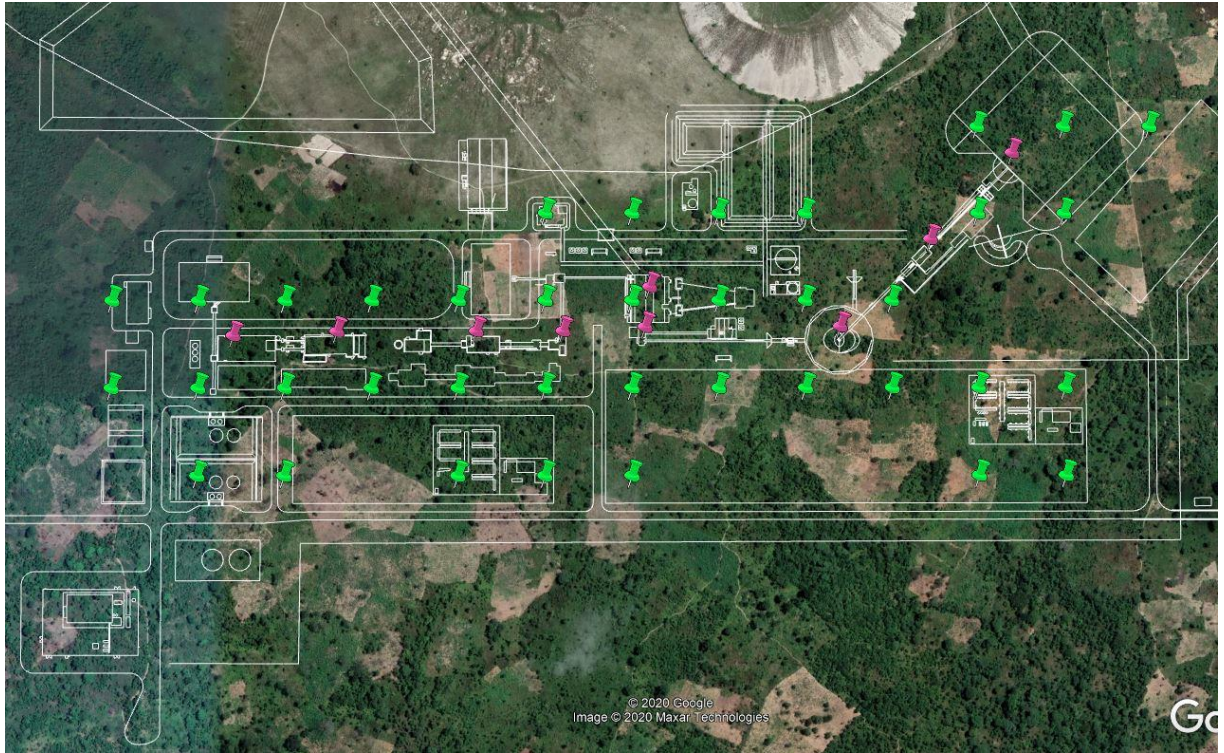


Figure 2. Test pits (green) and drill holes (pink) superimposed on the plant design



Figure 3. Outline of the Integrated Waste Landform west of the Roche Dure open pit

Roche Dure hydrogeological model field program

A specific hydrogeological investigation of Roche Dure is being undertaken following a regional appraisal of the hydrology of the site. Water table monitoring piezometers will be installed around the perimeter of the Roche Dure pit to determine and model the various parameters of the free-standing water table, including potential recharge of the water table and how it may be affected by the deepening of the Roche Dure open pit. Data from this programme may be used in the mine planning optimisation.

The final hydrogeological model will then be included in the Manono Environmental and Social Impact Assessment report which will accompany the application for the Manono mining permit.

It is anticipated the field component of the Phase 2 work program will be completed within the next two months followed by validation and reporting.

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

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Forward-looking statements can generally be identified by the use of forward looking words such as "likely", "believe", "future", "project", "should", "could", "target", "propose", "to be", "may", "will", "expect", "intend", "plan", "estimate", "anticipate", "continue", and "guidance", and other similar words and expressions, which may include, without limitation, statements regarding plans, strategies and objectives of management, expected exploration costs for the Company and indications of, and guidance on future earnings or financial position or performance. Any such forward-looking statement also inherently involves known and unknown risks (including risks generally associated with the mining industry), uncertainties and other factors that may cause actual results, performance and achievements to be materially greater or less than estimated.

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Competent Person Statement

The Mineral Resource estimate has been completed by Mrs Ipelo Gasela (BSc Hons, MSc (Eng)) who is a geologist with 14 years' experience in mining geology, Mineral Resource evaluation and reporting. She is a Senior Mineral Resource Consultant for The MSA Group (an independent consulting company), is registered with the South African Council for Natural Scientific Professions (SACNASP) and is a Member of the Geological Society of South Africa (GSSA). Mrs Gasela has the appropriate relevant qualifications and experience to be considered a Competent Person for the activity being undertaken as defined in the 2012 edition of the JORC Code. Mrs Gasela consents to the inclusion in the report of the matters based on her information in the form and context in which it appears.