



MANONO LITHIUM AND TIN PROJECT

SCOPE OF WORK - FEASIBILITY STUDY

AVZ Minerals Limited (AVZ) is developing the Manono Lithium and Tin Project (Project) located approximately 500 km due north of Lubumbashi in the south of the Democratic Republic of Congo (DRC) in central Africa. AVZ engaged GR Engineering to undertake a Feasibility Study for the design and construction of a processing facility and associated infrastructure for the Project.

The project will consist of a large lithium and tin open cut mine and a process plant utilising dense medium separation (DMS) to produce a spodumene concentrate, and gravity concentration circuit to produce a separate tin concentrate. The process has been developed to treat approximately 4.5 Mt/a of ore to produce approximately 700 kt/a of lithium concentrate with a grade of +6% Li₂O (SC6.0). Initially the project will focus on mining the Roche Dure deposit which has a resource of lithium pegmatites grading 1.65% Li₂O, 715 ppm Sn and 34 ppm Ta.

The process plant will include a two stage crushing and screening circuit to produce an intermediate crusher product, a crushed ore stockpile and a tertiary High Pressure Grinding Rolls (HPGR) crushing stage with integral screen a feed preparation screen to remove fines prior to DMS. A mica removal step incorporating upflow classifiers will prepare the ore for separation in two parallel DMS circuits to produce the primary DMS floats (coarse tailings), secondary DMS floats (middlings stream) and secondary DMS sinks (final concentrate). The fines removed prior to DMS will be pumped to the tailings storage facility. The primary DMS floats will be conveyed to the TSF to be used in ongoing construction of the TSF embankments. The secondary DMS floats will be stockpiled in the vicinity of the TSF for future treatment. AVZ envisage future stages of development to treat the DMS middlings stream and fines via a flotation plant and potentially value add to the product by installing a hydroxide plant.

AVZ plan to develop the Project over the next two years to commence production towards the end of 2021.

Commodity: Lithium and Tin
Region: Central Africa
Location: Manono, Democratic Republic of Congo
Project type: Greenfields, definitive feasibility study

Client: AVZ Minerals Limited (ASX: AVZ)
Award date: July 2019
Completion date: Late 2020
Project manager: Tony Mathwin
Process manager: Harry Holle