# Waterberg JV Resources Pity Ltd <br> A Geological Desktop Study 

## of the

## Farms:

Bonne Esperance 356 LR
Too Late 359 LR

Author: S.A Mkhabela. Pr.Sci.Nat, FSEG, MGSSA
Date : 27 July 2023

## Signature:



## 1. INTRODUCTION

Following an application, in terms of Section 102 of the Mineral and Petroleum Resources Development Act of 2002, for the inclusion of the farms Too Late 359 LR and Bonne Esperance 356 LR into Waterberg JV Resources Pty Ltd's Mining Right LP30/5/1/2/2/10161MR ("Mining Right"), this report serves as a synoptic geological overview of the aforementioned farms. It serves as a preliminary inference of the general geological features and characteristics on the farms.

Note that reconnaissance and/or exploration activities such as geological mapping, drilling and geochemical sampling have not been conducted on the farms.

## 2. LOCALITIES OF THE FARMS

The farms are situated on top of the Makgabeng Plateau in the Magisterial District of Blouberg, Limpopo Province, in South Africa (Figure 1). They are located adjacent to the Mining Right \& prospecting right perimeters.


Figure 1. A geographical map showing localities of the farms Bonne Esperance and Too Late.

## 3. GEOLOGY OF THE AREA

Based on the geological map of the area (Figure 2), the two farms are covered by the Waterberg Group sedimentary succession, in particular sandstones and shales of the Makgabeng Formation. As depicted on the map, a series of dykes can be seen cross cutting the sedimentary succession.


Figure 2. A map showing geological features of the farms. The map also depicts exploration drillholes on the adjacent Mining \& Prospecting right areas, including the subcrop positions of the mineralised zones.

Based on the intensive exploration activities on the adjacent farms, more data has become available to conclude with an acceptable level of confidence that both the T Zone and F Zone mineralisation does continue along strike from south to north and down dip from east to west. As depicted in Figure 3, the T Zone is a mineralised lithostratigraphic unit located at the boundary between the Upper Zone (UZ) and the Main Zone (MZN). The mineralised subzone within the T Zone is usually $\sim 5 \mathrm{~m}$ thick with precious metal grades $>2.5 \mathrm{~g} / \mathrm{t}$. The prill splits $/ \mathrm{metal}$ balance for the precious metals are $50 \%$ palladium, $30 \%$ platinum, $19 \%$ gold and $1 \%$ rhodium. Other base metals such as copper ( $0.08 \%$ ) and nickel ( $0.2 \%$ ) have been reported. The F Zone is a mineralised lithostratigraphic unit located below the MZN towards the base of the Bushveld Complex. The mineralised grade envelope within the F Zone is usually $\sim 80 \mathrm{~m}$ in thickness at times attaining > 100 m thickness in places where the Basement (BAS) has been embayed. The precious metal grades for the F Zone are $>2.5 \mathrm{~g} / \mathrm{t}$ of palladium ( $64 \%$ ), platinum ( $30 \%$ ), gold ( $5 \%$ ) and rhodium ( $1 \%$ ). Both copper ( $0.12 \%$ ) and nickel ( $0.2 \%$ ) have been reported for the F Zone.

In both the T Zone and the F Zone, the chrome content has been reported to be significantly lower ( $\sim 0.09 \%$ ) compared to the rest of the Bushveld Complex.


Figure 3. A cross section (dip section) showing lithostratigraphic locations of the mineralised zones (no scale).

Based on the drillhole data from the adjacent farms and the interpretations thereof, both the F Zone and the T Zone continues downdip from the farm Too Late to the farm Bonne Esperance. It is anticipated that closer to the Old Langsine/Too Late farm boundary, the T Zone mineralisation will be at the depth of $\sim 1030 \mathrm{~m}$ with F Zone at the depth of $\sim 1440 \mathrm{~m}$. These depths were derived from projecting the downdip extension of the deposit from the closest drillholes. It is also anticipated that since this will be closer to the subcrop position, the grades might be lower. However, from the middle of the farm Too Late, downdip to the farm Bonne Esperance, it is anticipated that the grades will start to improve. This interpretation is based on extrapolation of mineralisation continuity from the T Zone on the farm Ketting 368 LR to the T Zone mineralisation far north on the farm Millbank 325 LR. Downdip where grades are better, it is anticipated that the T Zone and F Zone mineralisation will be deeper; greater than 1800 m and greater than 2500 m respectively. Depending on the basement topography in the region, if each mineralisation continues downdip at an angle of $\sim 37^{\circ}$, it is projected that both mineralisation might be deeper than 3500 m at the boundary between the farms Bonne Esperance 356 LR and De La Roche 353 LR.

## 4. CONCLUSION

There is a high level of certainty on the T Zone and F Zone mineralisation continuity, extending into the farms Bonne Esperance 356 LR and Too Late 359 LR. Given that the farms are on the downdip portion of the deposit, compounded by the fact that they are located on the Makgabeng Plateau, the mineralisation is likely deeper.

