SASOL MINING
BRANDSPRUIT MINE,
IMPUMELELO SHAFT
VISUAL ASSESSMENT OF THE PROPOSED CONVEYOR ROUTE

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1. **INTRODUCTION**

It is the intention of Sasol Mining to construct a conveyor between the Brandspruit Mine, Impumulelo Shaft and the Brandspruit Mine, Main Shaft (part of the Sasol Secunda complex). The visual assessment was performed for the length of the conveyor, consisting of a viewshed analysis conducted for the proposed area where the conveyor will be situated, as well as a visual projection of what the area will look like once the conveyor is constructed.

2. **VIEWSHED ANALYSIS**

A viewshed analysis was performed for a radius of 5 km around the proposed conveyor route. It was assumed that a larger radius will be redundant as visibility is limited due to haziness. All points from which the conveyor is visible are indicated in Figure 1 (refer also to Appendix A) by the red areas.

![Viewshed Analysis Map](image)

**Figure 1: Viewshed analysis of the proposed conveyor**

The area indicated in red above was further analyzed in order to determine how much of the conveyor will be visible from any point. Figure 2 below (also refer to Appendix A) indicates how much of the conveyor can be seen from each point. The darker red areas indicate the areas from which more of the conveyor (i.e. a longer portion) will be visible. The lighter yellow areas are indicative of areas where less of the conveyor (shorter portion) will be visible. Therefore, the darker the red colour, the higher the visual impact.
3. **MODEL OF CONVEYOR BELT (PHOTOMONTAGE)**

Two photomontages were constructed, and a model of the conveyor belt was overlaid on these in order to give an impression of what it will look like after construction. Figure 3 below indicates the points from which the photographs were taken in order to construct the photomontage and conveyor belt model.

**Figure 3: site map**
The points were chosen for the conveyor model where it is anticipated that a higher impact will occur. The first photomontage (Figures 4A and 4B refer also to Appendix B) was taken from point 1b (refer to Figure 3) during summer, while a second photomontage (Figures 5A and 5B refer also to Appendix B) was taken from point 2 (refer to figure 3) during winter.

Figure 4A: Photomontage from point 1b (summer)

Figure 4B: Photosimulation from point 1b (summer)

Figure 4A (refer also to Appendix B) indicates the unaffected land (over the Watervalrivier flood plain adjacent to the R50 road) where Sasol proposes to construct the conveyor. In Figure 4B (refer also to Appendix B) the modeled conveyor is indicated. From this figure it can be seen that on the left hand side the conveyor will go underneath the road (R50). Moving further to the right the conveyor will reach a height of between 17 and 18m due to being situated in the Watervalrivier floodplain and thus providing areas for water to flow through. This rise of the conveyor will affect the horizon and thus the line of sight as well as sense of place. However this point was chosen as it is where the conveyor will be at it's highest for some distance and thus have the most severe impact. To the right the conveyor is lowered to approximately 1m from ground level. The impact decreases significantly in comparison to the middle section. The line of site and sense of place is still affected but the horizon is in most cases still visible.
Figures 5A and 5B (refer also to Appendix B) show a photomontage constructed during winter without, and then with the modeled conveyor belt (taken from the opposite side of the proposed conveyor at point 2 on Figure 3). On the left hand side of this simulation it can be seen again that the conveyor is at a lower level, and will impact less on the visual sense of place than the part of the conveyor rising above the floodplain (middle and right). The conveyor passing under the road can also be seen to the right of this image. Since the conveyor is clearly seen and breaks the horizon, it will affect the sense of place for residents.
Photomontage from point 1b on the R50 (Summer)

Photosimulation from point 1b on the R50 (Summer)