

ENVIRONMENTAL IMPACT STATEMENT

Taking the assessment of potential impacts into account, herewith please receive an environmental impact statement that summarises the impact that the mining operation may have on the environment after the management and mitigation of impacts have been taken into account, with specific reference to types of impact, duration of impacts, likelihood of potential impacts actually occurring and the significance of impacts.

<u>TYPE OF IMPACT</u>	<u>DURATION</u>	<u>LIKELIHOOD</u>	<u>SIGNIFICANCE</u>
<p><u>Site Establishment and Infrastructure Development:</u></p> <ul style="list-style-type: none"> ◆ Increased traffic on public and private access roads. ◆ Visual intrusion due to site establishment ◆ Loss of areas of agricultural importance. ◆ Potential negative impact on the Vaal River the floodplain and riparian zone as well as the lateral drainage lines and small depressions or pans occurring in the mining area within the affected area ◆ Potential impact on fauna within the footprint area. ◆ Potential impact on archaeological artefacts or palaeontological finds. ◆ Potential impact on existing infrastructure within the footprint area. ◆ Increased and continued work opportunities to local residents 	<p>Duration of site establishment phase</p>	<p>Definite</p> <p>Low Possibility</p> <p>Low Possibility</p> <p>Low Possibility</p> <p>Low Possibility</p> <p>Low Possibility</p> <p>Low Possibility</p> <p>High Possibility (+)</p>	<p>Medium Concern (SL1, SL2, TD1, TD2)</p> <p>Medium (SL1, SL2, TD1, TD2)</p> <p>Low-Medium (SL1, SL2, TD1, TD2)</p> <p>High SL1, Low – Medium SL2 Medium TD1, TD2)</p> <p>Low Concern (SL1, SL2, TD1, TD2)</p> <p>Low-Medium Concern (SL1, SL2, TD1, TD2)</p> <p>Low Concern (SL1, SL2, TD1, TD2)</p> <p>Medium-High (+)SL1, SL2, TD1, TD2)</p>
<p><u>Stripping and Stockpiling of Topsoil of the mining area</u></p> <ul style="list-style-type: none"> ◆ Dust nuisance caused by the disturbance of soil. ◆ Potential impact on vegetation and listed and protected plant species. ◆ Noise nuisance caused by earthmoving machinery ◆ Potential infestation of the topsoil heaps with weeds or invader plant species. ◆ Potential impact on fauna within the footprint area. ◆ Loss/contamination of stockpiled topsoil 	<p>Duration of operational phase</p>	<p>Definite</p> <p>Low Possibility</p>	<p>Low-Medium Concern (SL1, SL2, TD1, TD2)</p> <p>High SL1, Low – Medium SL2 Medium TD1, TD2)</p> <p>Low-Medium Concern (SL1, SL2, TD1, TD2)</p> <p>Low Concern (SL1, SL2, TD1, TD2)</p> <p>Low Concern (SL1, SL2, TD1, TD2)</p> <p>Low-Medium Concern (SL1, SL2, TD1, TD2)</p>

<u>TYPE OF IMPACT</u>	<u>DURATION</u>	<u>LIKELIHOOD</u>	<u>SIGNIFICANCE</u>
<ul style="list-style-type: none"> ◆ Potential contamination of construction area and surface runoff as a result of hydrocarbon spillages. ◆ Potential erosion of denuded areas. 		Low Possibility	Low-Medium Concern (SL1, SL2, TD1, TD2) Low-Medium Concern (SL1, SL2, TD1, TD2)
<u>Excavation and Loading and Hauling to Processing Area:</u> <ul style="list-style-type: none"> ◆ Safety risk posed by open excavations. ◆ Potential flooding of excavations ◆ Dust nuisance due to the movement of earthmoving equipment. ◆ Noise nuisance generated by earthmoving equipment. ◆ Potential contamination of surface runoff as a result of hydrocarbon spillages. ◆ Degradation of access roads. 	Duration of operational phase	Possible Possible Possible Possible Possible	Low-Medium Concern (SL1, SL2, TD1, TD2) Low Concern (SL1, SL2, TD1, TD2) Low-Medium Concern (SL1, SL2, TD1, TD2) Low-Medium Concern (SL1, SL2, TD1, TD2) Low-Medium Concern (SL1, SL2, TD1, TD2) Medium Concern (SL1, SL2, TD1, TD2)
<u>Processing of gravel:</u> <ul style="list-style-type: none"> ◆ Increased water use within the study area. ◆ Dust nuisance generated at the processing area ◆ Noise nuisance stemming from operation of the processing plant and transport of material. ◆ Safety risk posed by settling ponds ◆ Potential contamination of environment due to improper waste management. 	Duration of operational phase	Definite Possible Possible Possible Low Possibility	Medium Concern (SL1, SL2, TD1, TD2) Low-Medium Concern (SL1, SL2, TD1, TD2) Low-Medium Concern (SL1, SL2, TD1, TD2) Low-Medium Concern (SL1, SL2, TD1, TD2) Low Concern (SL1, SL2, TD1, TD2)
<u>Cumulative Impacts:</u> <ul style="list-style-type: none"> ◆ Expansion of mining area negatively affecting safety and security of the surrounding area. ◆ Impact on existing infrastructure as a direct result of the mining operation. 	Duration of operational phase	Low Possibility Low Possibility	Low Concern SL1, SL2, TD1, TD2) Low Concern SL1, SL2, TD1, TD2)
<u>Sloping and Landscaping:</u> <ul style="list-style-type: none"> ◆ Safety risk posed by un-sloped areas. ◆ Erosion of returned topsoil after rehabilitation. ◆ Infestation of the reinstated area with invader plant species. ◆ Potential impact associated with litter/waste left at the mining area. ◆ Return of the mining area to agricultural use upon closure (Positive Impact) 	Duration of decommissioning phase of	Low Possibility Low Possibility Low Possibility Low Possibility Definite (+)	Low Concern SL1, SL2, TD1, TD2) Low-Medium Concern SL1, SL2, TD1, TD2) Low Concern SL1, SL2, TD1, TD2) Medium-High (+)

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<u>Transport of concentrate to recovery plant:</u> <ul style="list-style-type: none"> ◆ Increased traffic along the public and private access roads. ◆ Overloading of trucks impact road infrastructure ◆ Increased income generated within the Tokologo municipal area (Positive Impact) ◆ Contribution of mine to local economic development (Positive Impact) 	Duration of operational phase	Low Possibility Low Possibility Definite (+) Definite (+)	Low Concern SL1, SL2, TD1, TD2) Low-Medium Concern SL1, SL2, TD1, TD2) Medium-High (+) Medium-High (+)
<u>Backfilling of excavations:</u> <ul style="list-style-type: none"> ◆ Dust nuisance generated as a result of the rehabilitation/landscaping activities ◆ Noise nuisance caused by machinery during the decommissioning phase ◆ Potential safety risk posed by unrehabilitated excavations. ◆ Potential increase in the risk of soil erosion from reinstated but denuded areas ◆ Potential infestation of the reinstated areas by weeds and invader plant species 	Duration of operational phase and decommissioning phase	Possible Possible Low Possibility Low Possibility Possible	Low Concern SL1, SL2, TD1, TD2) Low Concern SL1, SL2, TD1, TD2)
<u>Rehabilitation of processing area:</u> <ul style="list-style-type: none"> ◆ Dust nuisance generated as a result of the rehabilitation/landscaping activities ◆ Potential increase in the risk of soil erosion from reinstated but denuded areas ◆ Potential infestation of the reinstated areas by weeds and invader plant species ◆ Potential contamination of environment as a result of improper waste disposal ◆ Potential use of the settling ponds for water storage or aquaculture purposes (Positive Impact) 	Duration of decommissioning phase	Possible Possible Low Possibility Low Possibility Possible	Low Concern SL1, SL2, TD1, TD2) Low-Medium Concern SL1, SL2, TD1, TD2) Low-Medium Concern SL1, SL2, TD1, TD2) Low Concern SL1, SL2, TD1, TD2) Low Concern SL1, SL2, TD1, TD2)