

APPENDIX G

SUPPORTING IMPACT ASSESSMENT



ENVIRONMENTAL IMPACT STATEMENT

Taking the assessment of potential impacts into account, herewith please receive an environmental impact statement that summarises the impact that the proposed activity 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.

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<u>ENVIRONMENTAL IMPACT STATEMENT</u>			
SITE ALTERNATIVE 1			
<u>TYPE OF IMPACT</u>	<u>DURATION</u>	<u>LIKELIHOOD</u>	<u>SIGNIFICANCE</u>
<p>Site establishment & infrastructure development</p> <ul style="list-style-type: none"> • Alteration of the agricultural sense of place; • Loss of agricultural land for duration of mining; • Visual intrusion as a result of site establishment; • Potential impact on fauna within the footprint area; • Potential impact on vegetation and listed and/or protected plant species • Dust nuisance due to site establishment • Potential impact on archaeological artefacts; • Work opportunities to 6 local residents (Positive Impact) 	<p>Duration of site establishment phase (<1 month)</p>	<p style="text-align: center;">Possible</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>Low Possibility</p> <p style="text-align: center;">Definite</p>	<p style="text-align: center;">Low-Medium Concern</p> <p style="text-align: center;">Low-Medium Concern</p> <p style="text-align: center;">Low-Medium Concern</p> <p style="text-align: center;">Low Concern</p> <p style="text-align: center;">Low Concern</p> <p style="text-align: center;">Low-Medium Concern</p> <p style="text-align: center;">Low Concern</p> <p style="text-align: center;">Medium-High (+)</p>
<p><u>Construction of site access road:</u></p> <ul style="list-style-type: none"> • Visual intrusion caused by construction of site access road • Loss of stockpiled topsoil during construction of access road • Dust nuisance as a result of the construction of access road • Noise nuisance generated by earthmoving machinery. • Potential erosion of denuded areas. • Potential contamination of footprint area and surface runoff as a result of hydrocarbon spillages. 	<p>Duration of site establishment phase (<1 month)</p>	<p style="text-align: center;">Possible</p> <p>Low Possibility</p> <p>Low Possibility</p> <p>Low Possibility</p> <p>Low Possibility</p> <p>Low Possibility</p>	<p style="text-align: center;">Low Medium Concern</p> <p style="text-align: center;">Low-Medium Concern</p> <p style="text-align: center;">Low Concern</p> <p style="text-align: center;">Low Concern</p> <p style="text-align: center;">Low Concern</p> <p style="text-align: center;">Low Concern</p>

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SITE ALTERNATIVE 1

<p><u>Mining of silty sand and quartzitic sandstone pebbles:</u></p> <ul style="list-style-type: none"> • Soil contamination from hydrocarbon spills. • Disturbance to fauna within the footprint area. • Noise nuisance as a result of the mining activities. • Potential impact on areas/infrastructure of heritage or cultural concern. 	<p align="center">Duration of operational phase (5 years maximum)</p>	<p align="center">Low Possibility Low Possibility Low Possibility Low Possibility Low Possibility</p>	<p align="center">Low Concern Low Concern Low Concern Low Concern Low Concern</p>
<p><u>Stripping and stockpiling of topsoil and/or overburden:</u></p> <ul style="list-style-type: none"> • Visual intrusion caused by mining activities; • Loss of stockpiled topsoil during mining and stockpiling; • Dust nuisance as a result of the disturbance of soil; • Noise nuisance generated by earthmoving machinery; • Potential impact on local fauna due to disturbance and loss of available habitat; • Potential erosion of denuded areas; • Loss of stockpiled material due to ineffective storm water control • Potential contamination of footprint area and surface runoff as a result of hydrocarbon spillages; 	<p align="center">Duration of site establishment phase (<1 month)</p>	<p align="center">Low Possibility Low Possibility Low Possibility Low Possibility Low Possibility Low Possibility Possible</p>	<p align="center">Low Medium Concern Low Medium Concern Low Concern Low Concern Low Concern Low Medium Concern Low Concern</p>
<p><u>Excavation, loading and hauling to the processing plant:</u></p> <ul style="list-style-type: none"> • Visual intrusion as a result of excavation and from loading and vehicles transporting the material • Dust nuisance due to excavation and from loading and vehicles transporting the material; • Noise nuisance as a result of the mining activities; • Unsafe working environment for employees; 	<p align="center">Duration of operational phase (5 years maximum)</p>	<p align="center">Low Possibility Low Possibility Low Possibility Low Possibility</p>	<p align="center">Low Medium Concern Low Concern Low Concern Low Medium Concern</p>

ENVIRONMENTAL IMPACT STATEMENT

SITE ALTERNATIVE 1

<ul style="list-style-type: none"> • Soil contamination from hydrocarbon spills and/or littering; • Potential impact on areas of palaeontological concern; • Facilitation of erosion due to mining activities; 		<p align="center">Low Possibility</p> <p align="center">Low Possibility</p> <p align="center">Low Possibility</p>	<p align="center">Low Medium Concern</p> <p align="center">Low Concern</p> <p align="center">Low Concern</p>
<p><u>Processing, stockpiling and transporting of material:</u></p> <ul style="list-style-type: none"> • Dust nuisance generated at the processing plant; • Noise nuisance stemming from operation of the processing plant; • Visual intrusion as a result of operation of the processing plant • Potential contamination of environment due to improper waste management; • Overloading of trucks impacting road infrastructure; • Degradation of the access road; 	<p align="center">Duration of operational phase (5 years maximum)</p>	<p align="center">Low Possibility</p> <p align="center">Low Possibility</p> <p align="center">Low Possibility</p> <p align="center">Low Possibility</p> <p align="center">Low Possibility</p> <p align="center">Low Possibility</p>	<p align="center">Low Concern</p> <p align="center">Low Concern</p> <p align="center">Low Medium Concern</p> <p align="center">Low Concern</p> <p align="center">Low Medium Concern</p> <p align="center">Low Medium Concern</p>
<p><u>Cumulative impacts:</u></p> <ul style="list-style-type: none"> • Impact the broad-scale ecological processes; • Transformation of intact habitat would contribute to the fragmentation of the landscape and would potentially disrupt the connectivity of the landscape for fauna, avifauna, and flora and impair their ability to respond to environmental fluctuations • Impact on existing infrastructure as a direct result of the mining operation; 	<p align="center">Duration of all phases</p>	<p align="center"><u>LIKELIHOOD</u></p> <p align="center">Low Possibility</p> <p align="center">Low Possibility</p> <p align="center">Low Possibility</p>	<p align="center"><u>SIGNIFICANCE</u></p> <p align="center">Low Medium Concern</p> <p align="center">Low Medium Concern</p> <p align="center">Low Medium Concern</p>
<p><u>Sloping and landscaping upon closure of the mining area:</u></p> <ul style="list-style-type: none"> • Safety risk posed by un-sloped areas; • Erosion after rehabilitation; 	<p align="center">Duration of decommissioning phase (±2 months)</p>	<p align="center"><u>LIKELIHOOD</u></p> <p align="center">Low Possibility</p> <p align="center">Low Possibility</p>	<p align="center"><u>SIGNIFICANCE</u></p> <p align="center">Low Medium Concern</p> <p align="center">Low Medium Concern</p>

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<ul style="list-style-type: none">• Infestation of the reinstated areas by weeds and invader plant species;• Potential impact associated with litter/waste left at the mining area.• Return of the mining area to landscape feature upon closure (Positive Impact).		<p style="text-align: center;">Low Possibility</p> <p style="text-align: center;">Low Possibility</p> <p style="text-align: center;">Definite</p>	<p style="text-align: center;">Low Medium Concern</p> <p style="text-align: center;">Low Medium Concern</p> <p style="text-align: center;">Medium-High (+)</p>
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