

**BASIC ASSESSMENT REPORT & ENVIRONMENTAL MANAGEMENT PROGRAMME** 

# PROPOSED GRANITE/SYENITE QUARRY ON THE REMAINING EXTENT OF THE FARM QIKO 17448 ET, SITUATED UNDER THE MAGISTERIAL DISTRICT OF UGU,

# KWAZULU-NATAL PROVINCE

# Prepared for: Minzomanzi (Pty) Ltd

323 Lynwood road Menlo park Pretoria Gauteng 0081 Tell: 063 213 3321 Fax: 086 514 4103

Competent Authority:

DEPARTMENT OF MINERALS AND RESOURCES Regional Office 333, Anton Lembede Street 3rd Floor Durban Bay House Durban 4000



DMR REF: KZN 30/5/1/3/2/10695 MP

Prepared by:



Singo Consulting (Pty) Ltd

Office No. 16 First, Corridor Hill Crossing, 09 Langa Crescent, Corridor Hill, eMalahleni. Tel No.: 013-692-0041, Cell No.: 076-652-9062. Fax No.: 086-514-4103. E-mail address: <u>kenneth@singoconsulting.co.za</u>



# **BASIC ASSESSMENT REPORT**

# And

# ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT

SUBMITTED FOR ENVIRONMENTAL AUTHORIZATION IN TERMS OF THE NATIONAL ENVIRONMENTAL ACT, 1998 AND THE NATIONAL ENVIRONMENTAL MANAGEMENT WASTE ACT, 2008 IN RESPECT OF LISTED ACTIVITIES THAT HAVE BEEN TRIGGERED BY APPLICATIONS IN TERMS OF THE MINERAL AND PETROLEUM RESOURCES DEVELOPMENT ACT, 2002 (MPRDA) (AS AMENDED).

Project applicant:	Minzomanzi (Pty) Ltd		
Registration no (if any):	2018/491065/07		
Trading name (if any):	Minzomanzi (Pty) Ltd		
Responsible Person, (e.g.Director, CEO, etc).:	Director		
Contact person:	Dr Cedric Funokwakhe Xulu		
Physical address:	323 Lynwood road Menlo park Pretoria Gauteng 0081		
Postal address:	P O Box 35465 Menlo park Pretoria Gauteng		
Postal code:	0102		
Telephone:	063 213 3321	Cell:	063 213 3321
E-mail:	<u>cedricxulu@ilangabienergy.com</u>	Fax:	086 514 4103

FILE REFERENCE NUMBER SAMRAD: KZN 30/5/1/3/2/10695 MP

# **IMPORTANT NOTICE**

In terms of the Mineral and Petroleum Resources Development Act (Act 28 of 2002 as amended), the Minister must grant a prospecting or mining right if among others the mining "will not result in unacceptable pollution, ecological degradation or damage to the environment".

Unless an Environmental Authorisation can be granted following the evaluation of an Environmental Impact Assessment and an Environmental Management Programme report in terms of the National Environmental Management Act (Act 107 of 1998) (NEMA), it cannot be concluded that the said activities will not result in unacceptable pollution, ecological degradation or damage to the environment.

In terms of section 16(3)(b) of the EIA Regulations, 2014, any report submitted as part of an application must be prepared in a format that may be determined by the Competent Authority and in terms of section 17 (1) (c) the competent Authority must check whether the application has taken into account any minimum requirements applicable or instructions or guidance provided by the competent authority to the submission of applications.

It is therefore an instruction that the prescribed reports required in respect of applications for an environmental authorisation for listed activities triggered by an application for a right or a permit are submitted in the exact format of, and provide all the information required in terms of, this template. Furthermore, please be advised that failure to submit the information required in the format provided in this template will be regarded as a failure to meet the requirements of the Regulation and will lead to the Environmental Authorisation being refused.

It is furthermore an instruction that the Environmental Assessment Practitioner must process and interpret his/her research and analysis and use the findings thereof to compile the information required herein. (Unprocessed supporting information may be attached as appendices). The EAP must ensure that the information required is placed correctly in the relevant sections of the Report, in the order, and under the provided headings as set out below, and ensure that the report is not cluttered with un- interpreted information and that it unambiguously represents the interpretation of the applicant.

# **OBJECTIVE OF THE BASIC ASSESSMENT PROCESS**

The objective of the basic assessment process is to, through a consultative process-

- a) determine the policy and legislative context within which the proposed activity is located and how the activity complies with and responds to the policy and legislative context;
- b) identify the alternatives considered, including the activity, location, and technology alternatives;
- c) describe the need and desirability of the proposed alternatives,
- d) through the undertaking of an impact and risk assessment process inclusive of cumulative impacts which focused on determining the geographical, physical, biological, social, economic, heritage, and cultural sensitivity of the sites and locations within sites and the risk of impact of the proposed activity and technology alternatives on these aspects to determine:
- e) the nature, significance, consequence, extent, duration, and probability of the impacts occurring to; and
- f) the degree to which these impacts can be reversed; may cause irreplaceable loss of resources; and can be managed, avoided or mitigated;
- g) through a ranking of the site sensitivities and possible impacts the activity and technology alternatives will impose on the sites and location identified through the life of the activity to
- identify and motivate a preferred site, activity and technology alternative;
- identify suitable measures to manage, avoid or mitigate identified impacts; and identify residual risks that need to be managed and monitored.

# TABLE OF CONTENTS

1	Contact person and correspondence address	1
2	Location of the overall activity	2
2.1	Locality map (show nearest town, scale not smaller than 1: 250,000)	2
2.2	Description of the scope of the proposed overall activity	1
2.3	Listed and specified activities	1
2.4	Description of the activities to be undertaken	1
2.4.1	Site establishment/construction phase	5
2.4.2	Operational phase	6
2.4.3	Decommissioning phase	6
2.5	Policy and legislative context	7
2.6	Need and desirability of the proposed activities	9
2.6.1	Advantages	9
2.6.2	Disadvantages	9
2.7	Motivation for the overall preferred site, activities and technology alternative	0
2.8	Full description of process followed to reach proposed preferred alternatives within the site	1
2.8.1	Preferred site 1	1
2.8.2	Preferred activities	1
2.8.3	Technology alternatives	1
2.9	Details of the development footprint alternatives considered	1
2.9.1	Pit mining (preferred alternative) vs. underground mining	1
2.9.2	Temporary infrastructure (preferred alternative) vs. permanent infrastructure	2
2.9.3	Access onto provincial road (preferred alternative) vs. national road	2
2.9.4	No-go alternative	3
2.10	Details of the public participation process followed	3
2.10.1	Project advert published on Streeknuus/news released 07 August 2020	5
2.11	Summary of issues raised by I&APs	6
2.12	The environmental attributes associated with the alternatives	0
3	Baseline environment	0
3.1	Type of environment affected by the proposed activity	0
3.1.1	Regional geology	0
3.2	Description of current land uses	9
3.3	Description of site-specific environmental features and infrastructure4	2

3.4	Environmental and current land use map	. 44
3.5	Impacts and risks identified, including the nature, significance, consequence, extent, duration and probability of the impacts	. 45
3.5.1	Stripping and stockpiling of topsoil	. 45
3.5.2	STOCKPILING OF RUN OF MINE (ROM):	. 46
3.5.3	BLASTING:	. 47
3.5.4	CRUSHING:	. 47
3.5.5	STOCKPILING AND TRANSPORTING:	. 48
3.5.6	Sloping and landscaping during rehabilitation	. 49
3.5.7	Replacing of topsoil and rehabilitation of disturbed area	. 49
3.6	Methodology for the assessment of the potential environmental, social and cultural impacts	. 51
3.6.1	Definitions and concepts	. 51
3.6.2	Determination of overall environmental significance	. 55
3.6.3	Description of environmental significance and related action required	. 56
3.7	The positive and negative impacts that the proposed activity (in terms of the initial site layout) and alternatives will have on the environment and the community that may be affected	. 57
3.8	The possible mitigation measures that could be applied and the level of risk	. 57
3.8.1	Visual mitigation	. 57
3.8.2	Dust handling	. 57
3.8.3	Noise handling	. 58
3.8.4	Management of weed or invader plants	. 58
3.8.5	Storm water handling	. 58
3.8.6	Management of health and safety risks	. 59
3.8.7	Waste management	. 60
3.8.8	Management of access roads	. 60
3.8.9	Topsoil handling	. 60
3.8.10	Protection of fauna and flora	. 61
3.9	Motivation where no alternative sites were considered	. 61
3.10	Statement motivating the alternative development location within overall site	. 62
3.11	Process undertaken to identify, assess and rank impacts and risk of site activities	. 62
3.11.1	STOCKPILING OF RUN OF MINE (ROM):	. 63
3.11.2	BLASTING:	. 64
3.11.3	CRUSHING:	. 65

3.11.4	STOCKPILING AND TRANSPORTING:	65
3.11.5	Sloping and landscaping during rehabilitation	66
3.11.6	Replacing of topsoil and rehabilitation of disturbed area	67
3.12	Assessment of each identified potentially significant impact and risk	68
3.13	Summary of specialist reports	73
3.14	Environmental impact statement	78
3.14.1	Summary of the key findings of the EIA	78
3.14.2	Final site map	78
3.14.3	Positive and negative impacts of the proposed activity and alternatives	78
3.15	Proposed impact management objectives and the impact management outcome for inclusion in the EMPr	es 79
3.16	Aspects for inclusion as conditions of authorisation	81
3.17	Description of any assumptions, uncertainties and gaps in knowledge	81
3.18	Reasoned opinion as to whether the proposed activity should be authorised	81
3.19	Period for which the Environmental Authorisation is required	81
3.20	Undertaking	81
3.21	Financial provision	82
3.21.1	Explain how the aforesaid amount was derived	82
3.21.2	Confirm that this amount can be provided from operating expenditure	82
3.22	Specific information required by the Competent Authority	83
3.22.1	Impact on the socio-economic conditions of any directly affected person	83
3.22.2	Impact on any national estate referred to in section 3(2) of the National Herita Resources Act	ge 83
3.23	Other matters required in terms of section 24(4)(a) and (b) of the Act	84
4	Environmental management programme	85
4.1	Details of the EAP	85
4.2	Description of the aspects of the activity	85
4.3	Composite map	85
4.4	Description of impact management objectives, including management statements	85
4.4.1	Determination of closure objectives	85
4.5	Volume and rate of water use required for the operation	87
4.6	Has a water use licence has been applied for?	87
4.7	Impacts to be mitigated in their respective phases	88
4.8	Impact management outcomes	110
4.9	Impact management actions	117

5	Determination of the amount of financial provision1	27
5.1	Closure objectives and the extent to which they have been aligned to the baseline environment described under the Regulation12	27
5.2	Confirm specifically that the environmental objectives in relation to closure have been consulted with landowner and I&APs	27
5.3	Provide a rehabilitation plan that describes and shows the scale and aerial extent of the main mining activities, including the anticipated mining area at the time of closure	27
5.4	Explain why it can be confirmed that the rehabilitation plan is compatible with the closure objectives	27
5.4.1	Rehabilitation of the excavated area12	27
5.4.2	Rehabilitation of plant area12	28
5.4.3	Final rehabilitation	29
5.5	Calculate and state the quantum of the financial provision required to manage and rehabilitate the environment in accordance with the applicable guideline	29
5.5.1	Mine type and saleable mineral by-product	30
5.5.2	Risk ranking	30
5.5.3	Environmental sensitivity of the mine area	30
5.5.4	Level of information	30
5.5.5	Identify closure components	30
5.5.6	Calculation of closure costs	31
5.6	Confirm that the financial provision will be provided as determined	32
5.7	Mechanisms for compliance monitoring against EMP	33
5.8	Indicate frequency of the submission of the performance assessment/ environmental audit report	38
5.9	Environmental Awareness Plan	38
5.9.1	Manner in which the applicant intends to inform employees of any environmental risk which may result from their work	38
5.10	Specific information required by the Competent Authority	38
6	Undertaking	38

# **FIGURES**

Figure 1: Locality map showing the local municipality and district the project area falls ur	nder
(Nkangala District)	3
Figure 2: Locality map showing the actual location of the project area	3
Figure 3: Proposed mine layout (infrastructure plans)	1
Figure 4: Schematic representation of pit mining technique operation	2
Figure 5: Typical mobile crusher	2
Figure 6: Typical illustration of quarry mining	4
Figure 7: Existing outcrop rock at the project area	1
Figure 8: Geological map of the proposed site	23
Figure 9: Some of the alien plant seen during site assessment	26
Figure 10: Vegetation map of the proposed area.	26
Figure 11: Actual Vegetation type as observed from the field assessment conducted	27
Figure 12: Project area soil type	28
Figure 13: Land capability map of the area	30
Figure 14: Farming type of the proposed land	31
Figure 15: Quaternary catchment map of the proposed area	32
Figure 16: Topography of the project area	36
Figure 17: Picture from the site shows the visual exposure	37
Figure 18: Land use map	40
Figure 19: Google view map shows the current land use of the proposed permit	41
Figure 20: Figure showing nearest infrastructures	43
Figure 21: The environmental and current land use map, project area highlighted by a yellow	pin.
	44
APPENDICES	
Appendix A: Mine activities map	140

# APPENDICES

Appendix A: Mine activities map	140
Appendix B: Rehabilitation plan	141
Appendix C: Correspondence with stakeholders	142
Appendix D: Stakeholders Responses	168
Appendix E: Proof of Draft BAR Submission	170
Appendix F: Supporting Impact Assessment	171
Appendix G: Financial and Technical Competence	173
Appendix H: Site Assessment Pictures	174
Appendix I: Background Information Document	181
Appendix J: CV and Experience Record of EAP	185
Appendix K: Authority Correspondence	193
Appendix L: Emergency, Preparedness and Response Plan	202
Appendix M: Specialist Studies	203

# PART A: SCOPE OF ASSESSMENT AND BASIC ASSESSMENT REPORT

# 1 Contact person and correspondence address

#### a) Details of the Environmental Assessment Practitioner (EAP)

The applicant has appointed Singo Consulting as an independent EAP to conduct a BAR and EMPr that is required to support the application for a mining permit. Singo Consulting (Pty) Ltd has no vested interest in the proposed project and hereby declares its independence, as required by the EIA Regulations. Any queries regarding this BAR and EMPr may be directed to the following EAPs at Singo Consulting:

Environmental assessment practitioner	Singo Consulting (Pty) Ltd
Contact person(s)	Kenneth Singo (EAP REVIEWER)
	Livnuwani sigwaai ( Project EAP)
Physical address	Office No: 16 First Floor (South Block) Corridor Hill Crossing 09 Langa Crescent, Corridor Hill, eMalahleni, 1035
Postal address	Private Bag X7297, Postnet Suite 87, Witbank, 1035
Contact number(s)	Kenneth Singo: 078 272 7839 / 072 081 6682
	Livhuwani Sigwadi: 076 652 9062
Telephone number	013 692 0041
Fax	086 5144 103
Email(s)	kenneth@singoconsulting.co.za livhuwani@singoconsulting.co.za

## b) Expertise of the EAP

Singo consulting (Pty) Ltd is a growing organization within the field of environmental sciences and environmental management. This organization has provided sound solutions to unavoidable environmental problems particularly those triggered by human activities. This is achieved by tackling environmental problems using various fields of science such amongst others, chemistry, hydrology, environmental geology, geochemistry, geophysics, and soil sciences. Hence this leads to proper and sound environmental impact assessments and the productions of enforceable environmental management plans. This organization has conducted over 26 successful EIA's, basic assessment reports and environmental management plans which protects and supports sustainable use of environment.

#### c) Qualifications of the EAP

Please refer to the Appendix.

## 2 Location of the overall activity

Farm name	Remaining Extent of the farm Qiko 17448 ET
Proposed name of the mine	Not applicable
Application area (ha)	5 ha
Magisterial district:	Magisterial District of Umzinto, KwaZulu-Natal
Local government municipalities	uMdoni Local Municipality
Distance and direction from nearest town	Approximately 0.31 km North of Ngwadini Approximately 3.40 km South East of eNtsongeni Approximately 2.78 km South west of Echobeni. N2 road is running approximately 19km NE of the proposed project.
21-digit Surveyor General code for farm portion	N0ET0000001744800000 N0ET0000001744900000
Locality map	Locality map at a scale not smaller than 1:250000 (see Figure 1 and Figure 2)

# 2.1 Locality map (show nearest town, scale not smaller than 1: 250,000)

The Kwazulu Natal province occupies the Southern side of South Africa. This province consists of, amongst others, uMlazi, which is situated approximately 33.24 km North east side from Ngwadini where the proposed project located.

Portion of Remaining Extent of the farm Qiko 17448 ET situated in uMzinto, in Ugu District Municipality of the Kwazulu Natal Province. The site is located approximately 18 km Northern side of R612 and uMzinto km. Richmond is located approximately 41km North west of the proposed project and Scottburgh also situated approximately 22 km south east of the project.

Through desktop study, which was done in the office, it was realised that the proposed project is located approximately 640m southern side of the river. The nearest houses which were observed during desktop study are located 845m away from the proposed area.

The Umdoni Local Municipality is a Category B municipality located within the Ugu District in the KwaZulu-Natal Province. It is the smallest of four municipalities in the district, accounting for just under a quarter of its geographical area. It is made up of 10 wards, most of which are rural areas.

The municipality can be divided into three major land uses, being commercial agriculture, traditional authority areas and coastal urban nodes. The coastline stretches approximately 40km. The town of Scottburgh is approximately 50km from the city of Durban and 65km from Port Shepstone.







Figure 2: Locality map showing the actual location of the project area

# 2.2 Description of the scope of the proposed overall activity

Provide a plan drawn to a scale acceptable to the competent authority, but not less than 1:10 000 that shows the location, and area (hectares (ha)) of all aforesaid main and listed activities, and infrastructure to be placed on site.



Figure 3: Proposed mine layout (infrastructure plans)

## 2.3 Listed and specified activities

NAME OF ACTIVITY E.g. for prospecting: drill site, site camp, ablution facility,	Aerial extent of the activity	Listed activity	Applicable listing notice
accommodation, equipment storage, sample storage, site office and access route; and for mining: excavations, blasting, stockpiles, discard dumps/ dams,	Ha or m²	Mark with X where applicable	(GNR 324, GNR 325 OR GNR 327)
boreholes, accommodation, offices, ablution, stores,		of dilected	
workshops, processing plant, storm water control,			
berms, roads, pipelines, power lines and conveyors.			
Mining Permit Application	5Ha	Х	GNR 327
			Activity 21:
Vegetation Clearance	5 Ha	Х	GNR 327
			Activity 27
Access road	0.03Ha	Х	Not listed
Topsoil stockpile	0.07Ha	Х	Not listed
Aggregate Stockpile	0.27 Ha	Х	Not listed
Mobile offices	0.06Ha	Х	Not listed
Toilets and sanitation	0.01Ha	x	Not listed
Pollution Control Dam (PCD) construction	0.05Ha	Х	Not listed
Box cut construction	4.97Ha	Х	Not listed
Excavating	4.97 Ha	Х	Not listed
Granite/Syenite specs extraction	4.97 Ha	Х	Activity 21
Load and havl	4.97 Ha	Х	Activity 21
A closure certificate in terms of section 43 of the Mineral	5 Ha	Х	GNR 327
and Petroleum			Activity 22

## 2.4 Description of the activities to be undertaken.

Describe methodology/technology to be employed, including type of commodity to be prospected/mined, a linear activity and a description of the route of the activity.

The mining method proposed involves extraction of Granite/Syenite from the land that has not previously disturbed, only agricultural activities are being practiced, primarily livestock grazing. The topsoil will be removed on other site of the permit and stockpiled in the mine boundary for later use during rehabilitation. An outcrop rock and will be blasted at the mine face by means

of explosives in order to loosen the hard rock when necessary; the material will then be loaded into large trucks with excavators and transported to the mobile crusher. The crusher will break down the rock into pieces small enough to be transported. The Granite/Syenite will then be stockpiled and transported to clients via trucks and trailers. All activities will be contained within the boundaries of the mining site.



Figure 4: Schematic representation of pit mining technique operation



Figure 5: Typical mobile crusher

NAME OF ACTIVITY E.g. for prospecting: drill site, site camp, ablution facility, accommodation, equipment storage, sample storage, site office and access route; and for mining: excavations, blasting, stockpiles, discard dumps/ dams, loading, hauling, transport, water supply dams and boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines and conveyors.	Aerial extent of the activity Ha or m <sup>2</sup>	Listed activity Mark with X where applicable	Applicable listing notice (GNR 324, GNR 325 OR GNR 327)
Pit mining and crushing to produce Granite/Syenites pecs required by clients	5ha	X	Listing Notice 2: R325 on 7 April 2017, Activity 27 The clearance of an area of 1 ha or more, but less than 20 ha, of indigenous vegetation, except where such clearance of indigenous vegetation is required for: (i) The undertaking of a linear activity. (ii) Maintenance purposes undertaken in accordance with a maintenance management plan.
Pit mining and crushing to produce Granite/Syenite specs required by clients	5ha	X	<b>GN R. 327 (of 2017), Activity 21:</b> Any activity including the operation of that activity which requires a mining permit in terms of section 27 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002),
Pit mining and crushing to produce Granite/Syenite specs required by clients	5ha	X	GN R. 327 (of 2017), Activity 22: The decommissioning of any activity requiring – (i) a closure certificate in terms of section 43 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002); or (ii) a prospecting right, mining right, mining permit, production right or exploration right, where the throughput of the activity has reduced by 90% or more over a period of 5 years excluding where the competent authority has in writing agreed that such reduction in throughput does not constitute closure;

The quarry mining method will be used to extract Granite/Syenite. Site will be worked by blasting which will be progressed in an upwards direction. The mining method will include blasting with explosives to loosen the hard rock. The material will be loaded with excavators and hauled to the mobile crushing and screening plant that will be established within the project area. The Granite/Syenite will be stockpiled and transported to clients(target market) via trucks and trailers. All activities will be contained within the boundaries of the mining site.

This mining method was chosen due to its lower cost in comparison to other methods. In addition, the outcrop rock on the site will be more accessible using the proposed mining method.



Figure 6: Typical illustration of quarry mining

The proposed granite pit triggers GN R. 324/GN R. 325/GN R. 327 Activities 12, 21, 4 and 22 as:

- Activity 4: The development of a road wider than 4 metres
- Activity 21: The project requires a mining permit in terms of the MPRDA
- Activity 22: Upon closure of the site a closure permit in terms of the MPRDA will be required
- Activity 27: The clearance of an area of 1 ha or more, but less than 20 ha, of indigenous vegetation, except where such clearance of indigenous vegetation

The mine process map is shown in the table below.

Phase	Activity no	Activity
	1	Site clearing: Removal of topsoil and vegetation
Construction	2	Construction of any surface infrastructure, e.g. Haul roads, pipes, storm water diversion berms (incl. transportation of materials and stockpiling)

	3	Blasting and development of initial box cut for mining
	4	Temporary storage of hazardous products (fuel, explosives) and waste
	5	Removal of overburden and backfilling when possible
		(incl. drilling/blasting of hard overburden and stockpiling)
	6	Use and maintenance of haul roads.
	7	Extraction of minerals (mining process) and run of mine (RoM)
Operation		granite/Syenite stockpile
	8	Water use and storage on site
	9	Storage, handling and treatment of hazardous products (fuel,
		explosives, oil) and waste activities (waste, discard)
	10	Concurrent replacement of overburden, topsoil and re-vegetation
	11	Removal of all infrastructure (incl. transportation off site)
	12	Rehabilitation (spreading of soil, re-vegetation and profiling)
Decommissioning	13	Installation of post-closure water infrastructure
	14	Environmental monitoring of decommissioning activities
	15	Storage, handling and treatment of hazardous products (fuel,
		explosives, oil) and waste activities (waste discard)

# 2.4.1 Site establishment/construction phase

During site establishment, the applicant must demarcate the site boundaries and clear the topsoil and overburden from the extension area to open it for drilling and blasting. Upon stripping, the topsoil and overburden will be stockpiled along the boundaries of the quarry pit for use during the rehabilitation phase. Topsoil stripping will be restricted to the areas to be mined. The complete A-horizon (topsoil – the top 100-200 mm of soil, which is generally darker in colour due to high organic matter content) will be removed. If it is unclear where the topsoil layer ends, the top 300 mm of soil must be stripped.

The topsoil will be stockpiled in the form of a berm alongside the boundary of the mine pit where it will not be driven over, contaminated, flooded or moved during the operational phase. The material used to construct a berm will measure a maximum of 1.5 m high and indigenous grass species must be planted on it, if vegetation does not naturally establish within 6 months of stockpiling, to prevent soil erosion and discourage weed growth. The roots of the grass will improve soil viability for rehabilitation purposes. The stripped overburden will be stockpiled on a designated area after the topsoil has been removed.

The applicant will introduce the mining equipment to the area during the site establishment phase. The equipment to be used on site will include:

- Weigh bridge
- Mobile in-pit crusher plant
- Chemical toilet
- Drilling equipment
- Excavating equipment
- Earth moving equipment

# 2.4.2 Operational phase

The mining process includes drilling to set charges, detonation, loading and short haul, and stockpiling. Mining will be conducted by blasting from the rock face of the pit face. Blasting is anticipated to occur weekly. The noise caused by blasting will be instantaneous and of short duration. Picker will be used to extract proposed mineral only if necessary. The applicant must ensure that all surrounding residents/farmers are informed of each blasting event. After a blast, the larger Granite/Syenite will be broken into smaller pieces by hydraulic hammer. The manageable pieces will be transported by tipper or dumper trucks to the crusher plant. The Granite/Syenite is run through the crushers to produce the end product in various Granite/Syenite grades, depending on the market.

The mining activities will consist of the following:

- Excavating
- Blasting
- Loading
- Hauling
- Crushing and screening
- Product stockpiling and transporting

The machinery used in the operation will be serviced off site to avoid soil contamination. Only emergency repairs will be conducted on site with regular equipment maintenance. Fuelling of tracked vehicles must be done at the mining site for logistical reasons. A chemical toilet will be established on site to be used by the employees. The existing farm road will be used to access the mining area.

## 2.4.3 Decommissioning phase

The closure objectives include making the Granite/Syenite quarry safe and ensuring that the remainder of the site is fit for agricultural use. vegetated with an appropriate grass mix if vegetation is not naturally established in the area within six months of the replacement of the topsoil. Control of weeds and alien invasive plant species is an important aspect after topsoil replacement and seeding (if applicable) has been done in an area. Site management will implement an alien invasive plant management plan during the 12-month aftercare period to address germination of problem plants in the area.

The decommissioning activities will include:

- Replacing of topsoil
- Implementation of an alien invader plant management plan
- Levelling of the area since the area is located on mountainous area

# 2.5 Policy and legislative context

Applicable legislation and guidelines used to compile the report	Reference where applied	How does this development comply with and respond to the legislation and policy context
A description of the policy and legislative context within which the development is proposed, including an identification of all legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks and instruments that are applicable to this activity and are to be considered in the assessment process.		E.g. In terms of the National Water Act (NWA)a Water Use License has/has not been applied for.
Minerals and Petroleum Development Resources Act, Act 28 of 2002 (MPRDA) and the MPRDA Amendment Act, Act 49 of 2008	DMRE	The conditions and requirements attached to the granting of the mining permit will apply to the mining activities.
<ul> <li>Constitution of South Africa, specifically everyone has the right to:</li> <li>an environment that is not harmful to their health or wellbeing</li> <li>have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that prevent pollution and ecological degradation, promote conservation, and secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development</li> </ul>	Republic of South Africa	The mining activities will only proceed after effective consultation.
Environmental Impact Assessment (EIA) regulations	DMRE	This Report is being undertaken in terms of the EIA. Regulations are in place to determine any possible impacts on the environment and propose sufficient mitigation to prevent environmental damage.

Applicable legislation and guidelines used to compile the report	Reference where applied	How does this development comply with and respond to the legislation and policy context
National Environmental Management Act, Act 107 of 1998 (as amended) (NEMA)	DMRE	This report is being undertaken in terms of the NEMA (No. 107 of 1998), as amended, to determine environmental impact and propose sufficient mitigation to prevent environmental damage.
		The appropriate environmental authorisation will be obtained before proceeding with any mining activities. No mining activity will be conducted in a sensitive environment.
		Measures will be implemented to prevent pollution during mining activities. Once mining is complete, the area will be rehabilitated as close as reasonably possible to its pre-mining state.
National Water Act, 1998 (Act 36 of 1998). Best Practice Guidelines: Series A, G, & H	(Section 21) Water use & mine water management	Best practice guidelines will be followed for water management, water characterisation, water resource protection, water treatment, and the development of the mine water management model
National Environmental Management: Waste Act, Act 59 of 2008 (NEMWA)NEM: WA	Management measures Environmental awareness plan	N/A
National Heritage Resources Act, 25 of 1999 (NHRA)	Management measures	No mining activities will take place within 500 m of any identified heritage resource, such as a grave. No graves have been identified on the site in question.
Mine Health and Safety Act (MHSA), 1996 (Act No 29 of 1996)	The mitigation measures proposed for the site includes specifications of the MHSA	The operational phase of the mine will trigger the MHSA
Conservation of Agricultural Resources Act (CARA), 1983 (No. 43 of 1983)	Biophysical environment	All alien invader plants on site must be controlled in terms of CARA

# 2.6 Need and desirability of the proposed activities

Describe methodology/technology to be employed, including the type of commodity to the prospected/mined and for a linear activity, a description of the route of the activity.

The mining sector in South Africa has traditionally occupied a principal role in the generation of economic output. It provides employment and reduces poverty. The mining companies have an obligation to improve and develop the state of the communities in which they operate

through infrastructure, education and skills development. The mining activities bring different kinds of business, which has significant economic benefits for communities. And in most cases, the jobs created by the mines pay more than the average salary. The mining industry makes a big contribution to South Africa's export market. It generates significant gains from the foreign exchange rate differences. Mining contributions to the total government revenue are directed to the national and sub-national levels. The profits of mining companies and taxes generated by companies, in addition, contribute to the Gross Domestic Product (GDP) of the country.

Mining activity is needed to supply Granite/Syenite that will be used to ensure that constructions receive an ongoing supply of Granite/Syenite for building. The influx in construction and road maintenance projects near the quarry triggered this application. There is a new dam construction on the other side of the area that need Granite/Syenite for construction, this project will help a dam construction company to get building resource(Granite/Syenite) in time. The proposed quarry will supply nearby construction companies with Granite/Syenite. Therefore, it is justifiable to say there is already a market for Granite/Syenite in the area. Hence the proposed operation will generate cash flow in the surrounding.

The proposed project of Granite/Syenite to be mined will be supplied to the client, which will enhance dam contractor's with Granite/Syenite resources security to finish construction without shortage of granite/syenite.

Granite/Syenite rocks to be quarried have a more inert composition and show much lower rates of deterioration and lower water absorption the chances of water quality contamination by this quarry are negligible. Chemical composition of Granite/Syenite (quarts and feldspars) does not contain pyrite mineral that causes acid mine drainage, therefore there will be no acid mine drainage that will contaminate water.

The proposed development will ensure creation of job opportunities for both skilled, semi-skilled and unskilled workers which will contribute socio-economic status.

## 2.6.1 Advantages

- The area has abundant Granite/Syenite reserves
- The market demand for Granite/Syenite is certain

- The Granite/Syenite from the proposed area is an outcrop, therefore it has low mining costs.
- The demand of Granite/Syenite is increasing everyday as SA population rate increasing.
- Granite/Syenite mine has low environmental impacts as compared to other minerals.

# 2.6.2 Disadvantages

- The proposed area is located near the Mkomazi river which provides lives to the local, therefore the proposed project will alter the habitat of the local species. Permit is close to the water course and if is not properly managed under the condition given by water Affairs it will affect the quality of water that will negatively affect the end user.
- Irregularity of the outcrop will disturb the production target.

# 2.7 Motivation for the overall preferred site, activities and technology alternative

The proposed site earmarked for the winning of the granite will entail the mining of a quarry pit. The proposed site was identified as the preferred alternative due to the following reasons:

- The site offers the mineral sought after,
- The mining impact can be contained to one area on the property that has not previously been used for mining purposes,
- The outcrop rock will be mined through blasting and excavation. The rehabilitation of the disturbed area will therefore be incorporated into the rehabilitation objectives of the proposed mining area.
- The mining area can be reached by an existing access gravel road. No new road infrastructure needs to be constructed but upgrading of existing gravel road will be implemented.
- The grazing domestic animals will continue to use the area for feeding themselves but with under monitoring plan
- Pit mining of the quarry has been identified as the most effective method to produce the desired aggregate. Due to the remote location of the quarry the potential impacts on the surrounding environment, associated with mining, is deemed to be of low significance.

# 2.8 Full description of process followed to reach proposed preferred alternatives within the site

This section is about the determination of the specific site layout and the location of infrastructure and activities on site, having taken into consideration the issues raised by interested and affected parties (I&APs), and the consideration of alternatives to the initially proposed site layout.

# 2.8.1 Preferred site

The area is a brownfield, it is being utilised for local domestic grazing land (see Figure 7). Therefore, on the proposed applied mining permit area covered natural vegetation, there are no major infrastructures, and the site has been chosen based on a small scale geological investigation done in the area concerning granite resources.



Figure 7: Preferred site of the project area(outcrop rock, cattle dung and vegetation)

# 2.8.2 Preferred activities

The preferred and only manner of extracting granite for this proposed area is through mining. The life of a mine is currently intended to exist for two years, therefore temporary structures will be erected on site for the operation. No activities will be practiced in the site if its note mining related and not authorised.

## 2.8.3 Technology alternatives

There are no technological alternatives to the proposed mining activities. Pit mining is the only method that will be used with blasting to loosen the hard rock.

# 2.9 Details of the development footprint alternatives considered

With reference to the site plan provided as Appendix A and the location of individual site activities, provide details of the alternatives considered with respect to:

- (a) the property on which or location where it is proposed to undertake the activity
- (b) the type of activity to be undertaken
- (C) the design or layout of the activity
- (d) the technology to be used in the activity
- (e) the operational aspects of the activity
- (f) the option of not implementing the activity

The applicant identified an increase in Granite/Syenite usage. In this light, the proposed area was identified as the preferred and only viable site alternative. From extensive work conducted during desktop study in this area, it is known that this area contains the resource being sought.

Various project alternatives were considered during the planning phase of the project. These included the following:

## 2.9.1 Quarry mining (preferred alternative) vs Open pit mining

- Quarry mining method is used when deposits of commercially useful minerals or rock are found near or outside the surface
- Open pit mining is used where the mineral is shallow and found near the surface
- Quarry mining of the granite has been identified as the most cost-effective method to produce the desired granite/syenite as it is found on the surface.
- The geology of the area and depth of minerals to be mined is structurally unsuitable for open pit.
- Open pit is useful for a certain mineral such as Coal and Chrome, then quarry mining method its meant for rocks

# 2.9.2 Temporary infrastructure (preferred alternative) vs. permanent infrastructure

- Temporary infrastructure use will entail the use of track-based or easily removable infrastructure. This includes a mobile crusher plant, temporary weigh bridge and chemical toilet, with off-site vehicle and equipment servicing (offsite). The off-site office will be used for project administration purposes.
- Positive aspects: The infrastructure can be moved around in the mining area boundaries as mining progresses, decreasing the distance material has to be transported from the crusher plant to the stockpile area. In addition, the crusher plant and other equipment can move out of the mining area (and onto the existing road) during a blast to prevent potential fly rock damage. During the decommissioning phase, infrastructure will be removed from the mining area, making site rehabilitation easy and effective.
- The use of permanent infrastructure will increase the impact of the proposed project on the environment as it will entail the establishment of more structures, necessitate the use of concrete products on site in order to establish these infrastructure, lengthen the period required for rehabilitation as well as increase the rehabilitation cost as the permanent infrastructure will either have to be decommissioned or be maintained after the closure of the site.
- Due to the small size of the mining area the infrastructure may be exposed to fly rock damage during blasting events.
- The construction of permanent infrastructure on site will increase the visual impact of the proposed project on the surrounding environment and additional mitigation measures will have to be implemented to address the impact.
- In the light of the above, the use of temporary infrastructure is deemed to be the most viable preferred alternative.

## 2.9.3 Access onto provincial road (preferred alternative) vs. national road

- A gravel road from the site, which links the valley view road towards kuDlungezwa. A valley view road links to the R197 road on the South East of the project. Calendula Ave also join the N2 road which located approximately 1.73km Western side of the ocean.
- National road (N2): The turning of trucks transporting material from the mining area to clients onto the R197 is considered here, since the road regarded as the safe road to transport materials to other clients if there is a need to for minerals. To minimise the impact the activity may have on traffic, it is proposed that traffic management plan must be done before any transportation of granite using that mention road.

# 2.9.4 No-go alternative

The no-go alternative entails no change to the position and is therefore a real alternative that needs to be considered. The granite to be mined at the site will be used for route and construction industries, if however the no-go alternative is implemented the applicant will not be able to expand the quarry, not being able to utilize the mineral present in the area. This could have major impacts on facial expression such as transporting of material to construction site far off mining areas, cost effectiveness of material, impact on roads and road users due to long distance hauling of granite and loss of income to the local business area.

The no-go alternative was not considered the preferred alternative, as:

- The applicant will not be able to supply in the demand of road or construction contractors.
- The application, if approved, would allow the applicant to utilize the available granite as well as provide employment opportunities to local employees. Should the no-go alternative be followed these opportunities will be lost to the applicant, potential employees and clients.
- The applicant will not be able to diversify the income of the property.

## 2.10 Details of the public participation process followed

Describe the process undertaken to consult I&APs, including public meetings and one-on-one consultation. The affected parties must be specifically consulted regardless of whether or not they attended public meetings. Information to be provided to affected parties must include sufficient detail of the intended operation to enable them to assess what impact the activities will have on them or on the use of their land.

Personnel representing Government departments and Non-governmental organizations were consulted using Background Information Document (BID), Consultation letters, and in some instances, consultations were conducted telephonically. The following departments and organization formed part of the consultation process;

- Department of Agriculture, Forestry and Fisheries
- Department of Rural Development and Land Reform
- Department of Water and Sanitation
- Department of Environmental Affairs
- Department of Tourism
- Transnet
- Eskom
- uMdoni Local Municipality

On-site notices were placed at the gravel road transvers the Qiko, Site notice were also Erected along the farm boundaries. The notices were not extended to the local library since we were under Covid 19 regulation level 3. The project was also advertised in the *Zululand news* for all interested and affected parties to contribute their knowledge on the advertised proposed project.

Stakeholders and I&APs were notified of the availability of the Draft Basic Assessment Report for their perusal. A 30-day commenting period will be allowed for the perusal of the document upon which any comments received will be incorporated into the Final Basic Assessment Report to be submitted to DMR for approval.

# 2.10.1 Project advert published on Zululand news 07 August 2020

7 A00031 2020				ZO CLASSIFIEDS
NOTICE OF LIQUIDATION AND DISTRIBUTION ACCOUNT IN LYING FOR INSPECTION	MUNICIPAL AREA, REGISTRATION DIVISION GV, PROVINCE OF KWAZULU-NATAL, which has been lost or	PUBLIC & LEGAL NOTICES	ANNEX NOTICE TO DISPLAY INTENTION TO TERMS OF SECTION KwaZulu-Natal Liquor	URE D APPLY FOR LIQUOR LICENCE IN (42) (1)(b)(iii) OF ACT Licensing Act, 2010
IN THE ESTATE OF THE LATE THUSISE ELIAS NCUBE IDENTITY NUMBER 621101 0771 08	destroyed. All persons having objections to the issue of such copy are hereby required to lodge the same	$\mathbf{A}$	(Act No. 6 KZNI Name and surname of the applicant:	of 2010) A 3 THABANI VINCENT MPONTSHANE
4 ESTATE NUMBER: 12784/2018 DBN. DATE OF DEATH 25TH JUNE 2018 AND WAS MARRIED	in writing with the Registrar of Deeds: Pietermaritzburg, High Court Building, 300	MHLÄTHUZE	Category of licence applied for: (on-/off-consumption/micro- manufacturer/special event):	
AGRINETH NCUBE, LAST ADDRESS: KWA-LUBISI AREA, PONGOLA, 3170. THE FIRST AND FINAL	Pietermaritz Street, Pietermaritzburg, within two weeks from the date of publication of this notice. DATED AT RICHARDS	PUBLIC NOTICE: APPROVAL OF SOUTH32 HILLSIDE ALUMINIUM QUARANTINE AND ISOLATION FACILITY ON	is applied for: Trading name of the premises:	BHAMUZA TAVERN
LIQUIDATION AND DISTRIBUTION ACCOUNT IN THE ESTATE WILL BE OPEN	BAY ON THIS 3RD DAY OF AUGUST 2020. APPLICANT:	PORTION 43 OF ERF 5333, RICHARDS BAY Notice is hereby given that the King Cetshwayo Joint Municipal Planning Tribunal at its meeting held on 15 July 2020 resolved	Address of the premises:	KWAPHAWINI AREA, WARD 19, JOZINI, UNDER INKOSI NYAWO, INDUNA M TRADITIONAL COUNCIL
FOR INSPECTION AT THE MAGISTRATE C O U R T O F SIMDLANGENTSHA FOR A PERIOD OF 21	KLOPPERS INCORPORATED Suite 21, Partridge Place Lira Link, Richards Bay P. O. Box 1659	in accordance with Resolution No. 123 to approve the proposed South32 Hillside Aluminium Covid-19 Quarantine and Isolation	Date of display: Expiry date of display:	07 AUGUST 2020 01 SEPTEMBER 2020
(TWENTY-ONE) DAYS FROM THE DATE OF PUBLICATION HEREOF. H C MADIKE	Richards Bay, 3900 Telephone: (035) 7807300 Fax: 0866305888 Email: kerri.jubber @kloppersinc.co.za BEF: 255018017	area known as Enterprise Development (ED) Village). Any queries or questions relating to this notice may be directed to Mr Mthokozisi Mhlongo on 035 907 5612 or via email <u>mhlongoms@</u>	NB: Objections should be lodged wit from where the application emanates display. Office address: Umkhanyak Economic Development & Tourism, N 3965, Tel: 035 573 8800.	h the local committee in the distric within 21 days from the date of th ude District Office, Department of Izolozolo Avenue, 52 of 60, Mkhuzo mc202653120
P O Box 342 PONGOLA 3170	07-08-2020 MA020487	umhlathuze.gov.za Civic Offices Private Bag X1004		<u>v</u>
07-08-2020 MA020486		RICHARDS BAY 3900 NI MTHETHWA		
FORM JJJ LOST OR DESTROYED DEED	SAVE	ACTING MUNICIPAL MANAGER DMS1410198 md200464.52.20-6	IDOLOBHA Las	eMHLATHUZE
Notice is hereby given in terms of regulation 68 of the Deeds Registries Act, 1937, of the intention to apply for the issue of a	WATER		ISICELO SOKUTHOLA IMVUM NGOKWESIGABA 27(1)(b) SOMTHET KWEZINDAWO NOKUHLELWA KWAZO 1.13.4 SOSOMQULU ABALAWULA KWEZINDAWO EZINGAPIKANSI KOM	E YOMKHANDLU ESIFAKW HO OLAWULA UKUSETSHENZISW O (BYLAW) UHAMBISANA NESIGAB. UKUSETSHENZISWA (SCHEME KHANDI U WASEMHI ATHIIZE
certified copy of the NOTARIAL DEED OF PARTITION CESSION OF EXCLUSIVE USE RIGHTS	Flushing	UMHLATHUZE	Isaziso sikhishwa nokweSigaba 27(1)() kwezindawo nokuhlelwa kwazo (By) sosoMoulu abalawala ukusetehenziswe	aw), uhambisana nesiGaba 1.13.
NO. SK114/2/2006, dated the 20 March 2006, registered in the name of LOUIS ALMERO DU PISANIE, IDENTITY NUMBER:	the toilet accounts	CITY OF UMHLATHUZE APPLICATION FOR COUNCIL'S CONSENT IN TERMS OF SECTION 27(1) (b) OF SPATIAL PLANNING AND LAND USE MANAGEMENT BYLAW, 2017 PEAD WITH CLAIISE 113A OF THE JMHL THUZE LAND USE SCHEMENT	komkhandlu wasemhlathuze, njengoba Eliasa Hamisi. Ngokwesikhundla sami yokuthola imvume yoMkhandlu yokuseb Richards Bay, esibhaliswe ngamagama	i uchibiyelwe, ukuthi mina Mohame sokuba umfakiwesicelo nginenhlos enzisa isiza esingunombolo 8966Altor a ka Jacob Barry Hertzog Liebenber
4704295017084, in respect of certain EUA NO. Y1 (YARD) AS SHOWN AND M O R E F U L L Y	for	Notice is hereby given in terms of Section 27(1)(b) of the Spatial Planning and Land Use Management bylaw read with and Clause 1.13.4 of the uMhlathuze Land Use Khome as amonget that I Mohammed Filisa Hamiel in my canacity	kanye no-lvana Liebenberg, ngenjongo (Ibhusha) kanye nendawo yokudla inya Imininingwane, amapulani kanye nem	yokuvula indawo yokuzodayisa inyam ma ebizwa ngokuthi iShisanyama. inye imiqulu ingahlolwa (ngokuhlel
DESCRIBED ON SECTIONAL PLAN NO. SS149/2006, IN THE SCHEME KNOWN AS ERE 11182 IN RESPECT	30% of the	as applicant intend applying to the City of uMhlathuze for the consent of the Council to use Erf 8966 Alton, Richards Bay which is registered in the name of Jacob Barry Hertzog Liebenberg and Nana Liebenberg For the purpose of	ngaphambi kokuya emahhovisi) emah nombolo D327B, edolobheni lase Richa Noma imuphi umuntu ofisa ukuphikis	hovisi kaMasipala, eHhovisini eling rds Bay. sa noma ukufaka isikhalo mayelan
OF THE LAND AND BUILDING OR BUILDINS SITUATE AT RICHARDS B A Y, IN THE	household	(1) Butchery and braai outlet (Shisanyama) in terms of Section 27 (1) (a) of the Spatial and Land Use Management Bylaw, 2017 as amended read with Clause 1.13.4 of the uMhlathuze Land Use Scheme	nalesicelo kuzofanele athumele isiphik izizathu aphikisa ngazo. Izincwadi zesi kuMphathi Dolobha, kuleli kheli elithi Pr noma Email ethi creg@umhlathuze.g	iso noma isikhalo esibhaliwe esivez khalo noma isiphikiso zingathunyelw ivate Bag X 1004, Richards Bay, 390 ov.za iphinde ithunyelwe nakumfal
MUNICIPAL AREA, REGISTRATION DIVISION GV, PROVINCE OF KWAZULU-NATAL,	water usage.	Particulars, plans and other documents may be inspected (on appointment) in Office No. D327B, Richards Bay Municipal Offices (Civic Centre), CBD, Richards Bay between 7:20am to 16:00pm.	wesicalo ekhelenini elithi 87 Wager kungakapheli izinsuku ezingamashum lokuphuma kwesisikhangiso ephephano	Avenue, Umhlanga, Durban, 430 i amathathu (30) kusukela osukwir labeni.
which has been lost or destroyed. All persons having objections to the issue of such copy are hereby	By placing	Written objections against or representations concerning the proposed application should reach the Municipal Manager at Private Bag X1004, Richards Bay, 3900 or <u>cread/aumhlathuze.cov.za</u> as well as the applicant at 87 Wager Avenue, Umhlanga, Durban, 4302 within 30 days from the date of	Uma ingekho imibono noma izikhalazo e ezisukwini ezibekwe ngenhla, wonke an ayobe esevalekile.	zithunyelwayo mayelana nalesisazis nathuba okuzimbandakanya nalesicel mu020492:32:20
required to lodge the same in writing with the Registrar of Deeds: Pietermaritzburg, High Court Building, 300	a brick in the toilet	advertisement. Failure to lodge or forward objections/representations in response to this notice before the abovementioned date will preclude a person from further	NOTICE OF A JOINT PUBLIC PAR AND ENVIRONMENTAL AUTH	TCIPATION FOR MINING PERMIT ORISATION APPLICATIONS.
Pietermaritz Street, Pietermaritzburg, within two weeks from the date of publication of this notice.	cistern	participating in the process, or taking any turther steps with regard to the application.	Notice of Mining Permit applications Petroleum Resources Development A mining permit applications:	t d has applied a mining permit for
DATED AT HICHARDS BAY ON THIS 3RD DAY OF AUGUST 2020.	we could	<b>*</b>	Granite/Syenite on the Remaining E situated under the Magisterial District (DMR REF: KZN 30/5/1/3/2/10694 MP	Extent of the farm Qiko 17448 E of Umzinto, KwaZulu-Natal Province ).
KLOPPERS INCORPORATED Suite 21, Partridge Place Lira Link, Richards Bay	10		Notice 2: Minzomanzi (Pty) Ltd has Syenite on Remaining Extent of the fa ET, situated under the Magisterial	applied a mining permit for Granit rms Qiko 17448 ET and farm 1744 District of Umzinto, KwaZulu-Nat
P.O. Box 1659 Richards Bay, 3900 Telephone: (035) 7807300 Fax: 0866305888 Email: kerri.jubber	MILLION	ALL DISARDIST DESCRIPTION OF A DISCONTRACT OF A DISCONTRA	Notice 3: Silver Oak Mining (Pty) I Grante/Syenite on portion of the farr Magisterial District of Umzinto, KwaZi 30/5/1/32/10696 MP).	tod has applied a mining permit for n Qiko 17448 ET, situated under th Ilu-Natal Province. (DMR REF: KZ
REF: 25F018017 07-08-2020	water	Notice is nereby given or an application made in terms or Chapter 4(C), Section 46 of the utiliatizi Local Municipality Spatial Planning and Land Use Management By-law of the application submitted by the owner Thobelani Musics Sithole for the Social Consent to operate the Lorde on Eff 1199	INVITATION T	D COMMENT Mineral and Petroleum Developme
MA020493 NOTICE FORM JJJ LOST OR DESTROYED DEED	a day.	Eshowe, Pearson Street. A copy of the application is available for inspection by appointment, at the Planning and Economic Development Department, Town Planning Unit, in the Civic Buildings, Hutchinson Street during normal office hours (from 07:30 to	Act (MPRDA) (Act 28 of 2002) and E Government Notice No. 982 in Gaze amended on 7 April 2017, that Mfoloz (Pty) Ltd and Silver Oak Mining (Pty) Locather with Environmental Autorical	A regulations 2014, published under the No. 3822 of 4 December 2014 i Resources (Pty) Ltd, Minzomana r) Ltd has applied for Mining Permit per for the advace mentioned minor
Notice is hereby given in terms of regulation 68 of the Deeds Registries Act, 1937, of the intention to andy for the issue of a		16:00 Monday to Thursday) and 7:30 to 15h00 on Friday. Any person or party who wishes to object to this application, or who wishes to make representation thereon, must do so in writing to the Municipal Manager,	As part of the EIA process, more espe for this proposed projects, Interested & register and kindly submit any commer	cially the Public Participation Proces Affected Parties (I&APs) are invited its or concerns to reach Mr Livhuwa
certified copy of the SECTIONAL DEED OF PARTITION TRANSFER NO. ST11375/2006, dated the 20 March 2006		umagiz multicipanty and e-mail to <u>miniguma az orgiza</u> and <u>minicozisiNg</u> <u>umajazi orgiza</u> before close of business on Friday, 11 September 2020. Any person who wishes to make an appointment to inspect a copy of the application may contact the Town Planner.	Sigwadi by no later than Tuesday, the ge details provided below. The public is a the draft Basic Assessment report & & EMPr will be available for review f	of September 2020 using the conta so invited to review and comment of EMPr. The Basic Assessment report or 30 days calendar period from (
registered in the name of LOUIS ALMERO DU PISANIE, IDENTITY NUMBER: 4704295017084, in respect of contain SECTION NO.		The failure of any party or person to lodge or forward an objection or representation within the period as set above will preclude them from further participation in this process, or from taking any further steps with regards to this application. For enquires, contact the Senior Town Planner. Mr MS Numbers en 2012 2012 2014 - Instruction Town Planner. Mr MS	ENVIRONMENTAL ASSES	SMENT PRACTITIONER
or certain SECTION NO. 1 AS SHOWN AND MORE FULLY DESCRIBED ON SECTIONAL PLAN NO. SS149/2006, IN THE	131A	Ngueane on US2 334 2248 or <u>MthokozisiNi@umlalazi.org.za</u> during office hours. <u>MR. RAYMOND P MNGUNI</u> MUNICIPAL MANAGER	Singo Consul Office No. 16, First Floor, Corridor	ting (Pty) Ltd Hill Crossing, 09 Langa Crescent,
SCHEME KNOWN AS ERF 11182, IN RESPECT OF THE LAND AND BUILDING OR BUILDINS SITUATE AT RICHARDS B A Y, IN THE UMHI ATHUZE		Interface (CALING) AND CALIFY AND	Corridor Hill, eM Tell No.: +27 13 6920 04 1 Livhuwani 013 692 0041 livhuwani@singo	lalahleni,1035. ax No.: +27 86 5144 103 Sigwadi 076652962 consulting.co.za

# 2.11 Summary of issues raised by I&APs

Compile the table summarising comments and issues raised, and reaction to those responses.

Interested and Affected Parties List the names of persons consulted this column, and Mark with an X where those who m be consulted were in fact consulted	l in ust ed	Date Comments Received	Issued Raised	EAPs response to issues as mandated by the applicant	Section and paragraph reference in this report where the issues and or response were incorporated
	•				
Landowners/s					
OFFICE OF: INKOSI PHIKUBUXOKI BELE MINUTE DIKO IA ROCITERASE AND A DATA COUNCIL PO DOD IA ROCITERASE AND A HAR 2 JUNION MAIL CPALITY IND WITH A 200 Terms International Council Philosophic Council Philos	X	2020/08/20 08/09/2020	<ul> <li>He proposed a meeting with the client and the consultant</li> <li>Qiko traditional council responded on the consultation letter sent to them</li> <li>We as the Qiko TC would like to indicate that there was no consultative process for local and affected community.</li> <li>Our culture and heritage will be hugely disturbed and as a community leadership are very</li> </ul>	Noted, date of the meeting will be arranged Kindly note that we received your comments and we really appreciate your time, your concern regarding the proposed projects are considered. I will more appreciate if you choose a date(end of September 2020 as you suggested) for a proper meeting with the	See Appendix D for full consultation

Interested and Affected Parties List the names of persons consulted in this column, and Mark with an X where those who must be consulted were in fact consulted	Date Comments Received	Issued Raised	EAPs response to issues as mandated by the applicant	Section and paragraph reference in this report where the issues and or response were incorporated
		<ul> <li>ensuring a vast community participation during mining operation.</li> <li>We are privilege in understanding the cultural community values and believes, thus this process of Mining should be preceded by community engagements as this is tribal land.</li> <li>We the Qiko TC are coming from underprivileged backgrounds and social upliftment can never be compromised. Majority of our people work in cities and were not available to discuss the advert. They would be available at the end of September 2020.</li> <li>Giving an opportunity to other local interest groupings, discussion about a possibile if all stakeholders are involved. The determining common denominator would be an intensive community</li> </ul>	I will wait for the date of the meeting.	

Interested and Affected Parties List the names of persons consulted in this column, and Mark with an X where those who must be consulted were in fact consulted	Date Comments Received	Issued Raised	EAPs response to issues as mandated by the applicant	Section and paragraph reference in this report where the issues and or response were incorporated
		<ul> <li>participation and social upliftment strategy which should be share and understood by the affected parties.</li> <li>Cultural heritage preservation in a form of photo album before any the mining should been part of the process keeping the heritage of our affected land.</li> <li>Qiko traditional Council would like to request the extension of the advert in order to participate meaningfully in the consultative process to the 2nd October 2020.</li> </ul>		
Adjacent Landowner				

Interested and Affected Parties List the names of persons consulted in this column, and Mark with an X where those who must be consulted were in fact consulted		Date Comments Received	Issued Raised	EAPs response to issues as mandated by the applicant	Section and paragraph reference in this report where the issues and or response were incorporated
Local Municipality					
Cnr Bram Fischer & Williamson Streets, Scottburgh, 4180. Mr K Subben (Manager: Environment) Mrs Canesia Vezi (General Manager: Planning and Development)	x		No issues raised yet	Consultation email was sent with BID (07/08/2020)	Please refer to appendix A for consultation emails.

Interested and Affected Parties List the names of persons consulted in this column, and Mark with an X where those who must be consulted were in fact consulted		Date Comments Received	Issued Raised	EAPs response to issues as mandated by the applicant	Section and paragraph reference in this report where the issues and or response were incorporated
District Municipality					
Ugu District Municipality	X		No issues raised yet.	Consultation email was sent with BID (07/08/2020)	Please refer to appendix A for consultation emails.
Councillor					
Hlongwa 073096001562					
Organs of state (Responsible for infrastructure that may be affected Roads Department, Eskom, Telkom, DWA					

Interested and Affected Parties List the names of persons consulted in this column, and Mark with an X where those who must be consulted were in fact consulted		d in Iust ed	Date Comments Received	Issued Raised	EAPs response to issues as mandated by the applicant	Section and paragraph reference in this report where the issues and or response were incorporated
	agriculture, forestry & fisheries Department: Agriculture, Forestry and Fisheries REPUBLIC OF SOUTH AFRICA	X	26/08/2020	The information pertaining the natural forestry or protected trees is insufficient to the department to provide an informed comment. Therefore the department request a vegetation specialist study to be undertaken.	Thanks you advice is noted and it will considered	Please refer to appendix A for consultation emails.
Mr Themb Tel: +27 3 Fax: +27 3 Web: www Email: <u>Ph</u> <u>f.gov.za</u> Thembak	palakhe Sibozana 3 392 7700 33 342 8783 <u>w.daff.gov.za</u> <u>MBResourceCentre@daf</u> akheS@daff.gov.za					
PMB Resol	wree					
	Water & sanitation Department: Water and Sanitation REPUBLIC OF SOUTH AFRICA	X		No issues raised yet	Consultation email was sent with BID (07/08/2020)	Please refer to appendix A for consultation
Mr Chief Dire Email: <u>Sto</u> Pillay R Email: <u>pill</u>	Ashley Starkey ector: KwaZulu-Natal arkeyA@dws.gov.za ayr@dws.gov.za					emails.
Interested and Affected Parties List the names of persons consulted in this column, and Mark with an X where those who must be consulted were in fact consulted		Date Comments Received	Issued Raised	EAPs response to issues as mandated by the applicant	Section and paragraph reference in this report where the issues and or response were incorporated	
--	---	------------------------------	-----------------------	---	---	
	x		No issues raised yet.	Consultation email was sent with BID (07/08/2020)	Please refer to appendix A for consultation emails.	
Nerissa Pillay Email: <u>nerissa.pillay@kznwildlife.com</u> Mrs Dinesree Thambu-Moodley Tel: 033 845 1425 Fax: 033 845 1499 e-mail: <u>dinesree.thambu@kznwildlife.co</u> <u>m</u>	x		No issues raised yet	Consultation email was sent with BID (07/08/2020)	Please refer to appendix A for consultation emails.	
edtea Department : Economic Development, Tourism and Environmental Affairs PROVINCE OF KWAZULU-NATAL	X		No issues raised yet	Consultation email was sent with BID (07/08/2020)	Please refer to appendix A for consultation emails.	

Interested and Affected PartiesDoList the names of persons consulted in this column, andReMark with an X where those who must be consulted were in fact consulted		Date Comments Received	Issued Raised	EAPs response to issues as mandated by the applicant	Section and paragraph reference in this report where the issues and or response were incorporated
Siphosakhe Xulu Tel: +27 35 780 6700 Email: <u>siphosakhe.xulu@kznedtea.gov.z</u> <u>a</u>					
public works     Department:     PROVINCE OF KWAZULU-NATAL     Tel: 033 355 5500     Email: info@kznworks.gov.za	X		No issues raised yet.	Consultation email was sent with BID (07/08/2020)	Please refer to appendix A for consultation emails.
Iabour   Department:   Labour   REPUBLIC OF SOUTH AFRICA   Mbongeni Tshabalala   Email:   Mbongeni.Tshabalala@labour.g   OV.za	x		No issues raised yet.	Consultation email was sent with BID (07/08/2020)	Please refer to appendix A for consultation emails.

Interested and Affected Parties List the names of persons consulted this column, and Mark with an X where those who m be consulted were in fact consulted	d in iust ed	Date Comments Received	Issued Raised	EAPs response to issues as mandated by the applicant	Section and paragraph reference in this report where the issues and or response were incorporated
transport   Department:   Transport   PROVINCE OF KWAZULU-NATAL   Ms. Zilungile Khanyile   Tel: +27 34 212 2127   Email:   zilungile.khanyile@kzntransport.g   ov.za	X		No issues raised yet.	Consultation email was sent with BID (07/08/2020)	Please refer to appendix A for consultation emails.
Department of Arts and Culture	X			Application to be submitted according to the stipulated guidelines.	Please refer to appendix A for consultation emails.

Page 14 of 228

Interested and Affected Parties List the names of persons consulted in this column, and Mark with an X where those who must be consulted were in fact consulted	Date Comments Received	Issued Raised	EAPs response to issues as mandated by the applicant	Section and paragraph reference in this report where the issues and or response were incorporated
Amafa Mrs Lindiwe Msomi Tel: +27 33 394 6543 Email: <u>lindim@amafapmb.co.za</u>				
SANBI Image: Constraint of Life   Biodiversity for Life Image: Constraint of Life   South African National Biodiversity Institute   Moshe Dipolelo.   Email: D.Moshe@sanbi.org.za		No issues raised yet.	Consultation email was sent with BID (07/08/2020)	Please refer to appendix A for consultation emails.

Interested and Affected Parties List the names of persons consulted in this column, and Mark with an X where those who must be consulted were in fact consulted		Date Comments Received	Issued Raised	EAPs response to issues as mandated by the applicant	Section and paragraph reference in this report where the issues and or response were incorporated
Akani Shivambu Tel: +27 13 735 4265 / +27 13 735 4196 Akani.shivambu@sanparks.org	x		No issues raised yet.	Consultation email was sent with BID (07/08/2020)	Please refer to appendix A for consultation emails.
Telkom Email <u>: wyleaves2@telkom.co.za</u>	x		No issues yet. raised	Consultation email was sent with BID (07/08/2020)	Please refer to appendix A for consultation emails.

Interested and Affected Parties List the names of persons consulted in this column, and Mark with an X where those who mus be consulted were in fact consulted	Date Comments Received	Issued Raised	EAPs response to issues as mandated by the applicant	Section and paragraph reference in this report where the issues and or response were incorporated
Siyabonga Nsele Email: <u>Nselesi@eskom.co.za</u> Cell: +27 84 233 4610 Fax: +27 31 710 5146 SibiyaTG@eskom.co.za Lungile Motsisi <u>MotsisL@eskom.co.za</u> Tel: +27 11 800 5734	K	No issues yet. raised	Consultation email was sent with BID (07/08/2020)	Please refer to appendix A for consultation emails.
SANRAL SOUTH AFRICAN MATIONAL ROADS ACCOUNTS OF COM WILLOWS SOUTH AFRICA BUILDING SOUTH AFRICA THROUGH BETTER ROADS Nomsa Modise	K	No issues raised yet.	Consultation email was sent with BID (07/08/2020)	Please refer to appendix A for consultation emails.

Interested and Affected Parties List the names of persons consulted in this column, and Mark with an X where those who must be consulted were in fact consulted		Date Comments Received	Issued Raised	EAPs response to issues as mandated by the applicant	Section and paragraph reference in this report where the issues and or response were incorporated
Email: <u>modisen@nra.co.za</u>					
Livhuwani Ndou Email: Livhuwani.ndou@transnet.net Ray Teichmann Email: ray.teichmann@transnet.net	X		No issues raised yet.	Consultation email was sent with BID (07/08/2020)	Please refer to appendix A for consultation emails.
<b>Email:</b> advocacy@birdlife.org.za	X		No issues raised yet.	Consultation email was sent with BID (07/08/2020)	Please refer to appendix A for consultation emails.

Interested and Affected Parties List the names of persons consulted this column, and Mark with an X where those who mu be consulted were in fact consulted	Date Comments Received	Issued Raised	EAPs response to issues as mandated by the applicant	Section and paragraph reference in this report where the issues and or response were incorporated
COMMISSION ON RESTITUTION OF	x	No response has been received yet.	Land Claim enquiry email was sent (07/08/2020)	Please refer to appendix A for consultation emails.
Department of Rural Development and Land Reform (DRDLR)				
Lynn Boucher Email:				

# 2.12 The environmental attributes associated with the alternatives.

The environmental attributes described must include socio-economic, social, heritage, cultural, geographical, physical and biological aspects.

# 3 Baseline environment

# 3.1 Type of environment affected by the proposed activity

Its current geographical, physical, biological, socio-economic and cultural character.

## 3.1.1 Regional geology

## 3.1.1.1 PONGOLA SUPERGROUP

The Pongola Supergroup, which unconformably overlies the granite-greenstone basement of the Kaapvaal Craton (SACS, 1980; Button, 1981) is one of the earliest known supracrustal sedimentary successions to have developed on a stabilised craton, and shows many features which suggest deposition in a continental rift environment (Burke et al., 1985). Matthews (1990) concluded that deposition of the Pongola Supergroup occurred in two connected but contrasting structural domains. The N -S trending northern structural domain evolved as a half-graben, syndepositional rift-basin or aulacogen, while the E-W trending southern structural domain evolved originally as part of an epicratonic basin which probably opened southward onto a continental margin.

Rifting in the northern domain was accompanied by extensive volcanism, resulting in the extrusion of most of the Nsuze Group volcanics. This was followed by thermal subsidence where predominantly shallow water sediments of the Mozaan Group were deposited. Late- to post-Pongola tectonothermal events followed, which were firstly, upper Mozaan volcanism, followed by extensive normal faulting and lastly widespread intrusive (Ushushwana Complex and granitoid plutons) which caused accommodation folding.

The predominantly sedimentary southern domain with minor volcanic formations was thought to be deposited within a slowly subsiding epicratonic basin. Initial sedimentation (up to 5 km thick) was followed by up to 5 periods of deformation. Deformation included an episode of extensional tectonics that produced extensive N -dipping half-graben structures which contained up to 5 km of Nsuze Group lithologies. Regional uplift and erosion followed, after which regional subsidence and renewed sedimentation occurred as the post-rift thermal-subsidence basin of the Pongola aulacogen expanded southward to granite esce with the epicratonic basin.

The Pongola Supergroup has been subdivided into a lower volcano" 'sedimentary Nsuze Group and an upper sedimentary Mozaan Group which has been correlated with the Witwatersrand Supergroup (Beukes and Cairncross, 1991). The lithologies outcrop as various inliers in northern KwaZulu-Natal, Mpumalanga, and Swaziland. Each inlier is characterised by localised stratigraphic variances. A generalised stratigraphy for the entire Pongola Supergroup, however, will be presented.

# 3.1.1.2 Local geology

Two formations (the Quha and Mpambanyoni Formations) of banded paragneisses and migmatites, and a fine-grained, leucocratic pink acid gneiss sequence were initially recognised within the Mapurnulo Group by Thomas (1989a). However, subsequent work by (Thomas et al. (1991) found that the original subdivision was not justified, and the Quha Formation now includes the Mpambanyoni Formation. The pink gneisses are typical of the Mzumbe Terrane but have not been given formation status yet as they are thought to be representative of diverse protoliths (Thomas, 1989a). However, Thomas et al., (1991d) differentiated some of the pink gneisses of the Mapurnulo Group in the southern part of the Mzumbe Terrane into the Ndonyane Formation on the basis of field evidence. Similar lithologies to the Quha and Ndonyane Formations have been reported from undifferentiated rocks of the Mapumulo Group in the northern part of the Mzumbe Terrane in the Lilani Area, though no formal correlation has been made (Thomas, 1992a).

Much evidence regarding the origin of these rock types is lacking, as primary textures have largely been destroyed by polyphase deformation, metamorphism and migmatization. Thomas (1989a) regarded some of the highly siliceous rocks (up to 80% quartz + accessory magnetite) to represent metamorphosed quarzitic sediments, while less siliceous gneisses with flattened mafic inclusions were considered to be deformed granites. Fine-grained sillimanite and tourmaline-bearing pink gneisses were thought to have originated from volcanic/volcaniclastic rocks. The predominant lithologies are outlined and detailed petrographic descriptions and localities are given in Thomas (1988b).

As it showed on the geological map Figure 8 below Mapumulo Group is surrounded by Mkomazi Gneiss belt. Pretectonic intrusive gneisses is the Mkomazi Gneiss Layered, biotite-garnet (± sillimanite and cordierite) granitic augen intrusive (Thomas, 1991c) gneiss. Typically, coarsegrained with large K-feldspar megacrysts. Forms irregular sheet-like bodies and a tabular batholith. Contains layers and elongate xenoliths of Mpambanyoni Gneisses and/or the pink gneisses. Thus, they show characteristics of being crustal, S-type, peraluminous granites. Intrudes the Quha and Ndonyane Formations and is intruded by the Mzimlilo Granite and garnet leucogranite veins and sheets.

#### Table 1: Mkomazi formation

Timing	Intrusive Suite/Pluton	Description
Syntectonic granites	Mahlongwa Granite (Thomas et al, 1991b)	A number of deformed sheets and plutons of strongly foliated, pink, megacrystic, K-feldspar-porphyritic biotite granite and quartz-syenite. Intrudes Mapumulo Group gneisses and the Mzumbe Suite.
	Humberdale Granite (Eglington et al., 1991)	Medium- to coarse grained, pink-weathering, porphyritic, foliated biotite-hornblende granite with finer-grained granite and aplitic phases. Rb-Sr whole-rock age of $981 \pm 35$ Ma (Evans et al., 1987). Intrudes gneisses of the Mapumulo Group and metabasites of the Equeefa Suite.
	Mzimlilo Granite (Thomas, 1991d)	A number of sheet-like bodies (1-2 km thick) of pink-weathering, grey, medium- to coarse-grained, leucocratic, mildly porphyritic, K- feldspar-rich, biotite hornblende $\pm$ garnet granite gneiss. Grain size variations, biotite-rich paragneissic xenoliths and schlieren form a crude banding. Granites show S-type affinities (Thomas and Gain, 1989). Rb-Sr whole-rock age: 1089 $\pm$ 14 Ma (Evans et al., 1987). Intrudes Mapumulo Group gneisses and the Mkomazi Gneiss, and occurs as xenoliths in the Humberdale Granite.
Pretectonic intrusive gneisses	Mkomazi Gneiss (Thomas, 1991c)	Layered, biotite-garnet ( $\pm$ sillimanite and cordierite) granitic augen gneiss. Typically coarse-grained with large K-feldspar megacrysts. Forms irregular sheet-like bodies and a tabular batholith. Contains layers and elongate xenoliths of Mpambanyoni Gneisses and/or the pink gneisses. Thus they show characteristics of being crustal, S- type, peraluminous granites. Intrudes the Quha and Ndonyane Formations and is intruded by the Mzimlilo Granite and garnet leucogranite veins and sheets.
	Equeefa Suite (Thomas et al., 1991c)	A metamorphosed suite of mafic and minor ultramafic intrusive rocks (harzburgite, olivine orthopyroxenite and orthopyroxenite) which consist of a large mafic/ultramafic intrusion, an extensive amphibolite dyke swarm and minor podiform noritoids. These are deformed by, and terminate against, the Melville Shear. Dated at $1024 \pm 32$ Ma (Evans et al., 1987). Intrudes the Mapumulo Group gneisses and the Mzumbe Suite.
	Mzumbe Granitoid Suite (Thomas, 1990b)	Highly distinctive, quartz diorite-tonalite-trondhjemite-granodiorite grey gneiss suite with high- $Al_2O_3$ , low-K, calc-alkaline, I/M-type granitoid affinities (Thomas, 1989c). Occur as extensive, flat tabular bodies which have undergone intense polyphase deformation, amphibolite-facies metamorphism and migmatisation.



Figure 8: Geological map of the proposed site



Figure 9: Google view shows the outcrop rock circled in red

Page 24 of 228

# 3.1.1.3 Flora

# Description of Vegetation type

In the northern KwaZulu-Natal Interior Basin the vegetation is dominated by Natal Central Bushveld with Natal Lowve1d Bushveld in east offhese interior basins (Low and Rebelo, 1996). The Tugela Valley has Valley Thicket, while Short Mistbe1t Grassland covers the southern zones. The vegetation over the greater part of the zones where tillite is exposed is described by Low and Rebelo (1996) as Coast Hinterland Bushveld. Natal Central Bushveld is present in the northern KwaZulu-Natal Interior, while Short Mistbelt Grassland occurs in the Mistbelt.

The natural vegetation of the positioning has been mostly preserved in its state during a range of areas as natural parcel. it's typical Ngongoni veldt (SVs4) (Mucina and Rutherford, 2006: 510). This on an area scale is brought up as Dry coastal back country Ngongoni veldt (Camp, 1999) and a lot of specifically Bioresource Unit Vb fifteen Cato Ridge (Camp, 1995). The dense, wooded vegetation on the escarpment slope is understood as jap vale Bushveld (SVs6). the excellence between the two vegetation sorts is kind of distinct. Ngongoni veldt may be a parcel with varied forbs in amongst the grasses with plait and shrubs occurring in scattered bush clumps. vale bush on the other hand may be a tangled mass of a particular choice of trees, scramblers shrubs and forbs. It is usually related to undulated piece of ground in deep valleys wherever it gets hot.

The diversity of grass species is quite limited although the diversity of forbs is still good. It would appear that there was some historic disturbance on the land causing sheet erosion across the entire plateau since the area is very steep, where natural erosion occurred in high percentage during rainy season. At the start of the slope from Mkomazi river the land becomes quite steep and rocky. At the rocky area seen during site assessment the diversity of the vegetation is significantly more diverse. The grasses located on the flood plain still appeared green and in a good state as far as diversity of grasses and forbs are concerned. Scattered alien plants create microhabitats promoting further alien invaders to become established see Figure 10 below.



Figure 10: Some of the alien plant seen during site assessment



Figure 11: Vegetation map of the proposed area.

The vegetation type especial grass species are Aristida junciformis, Digitaria eriantha, Eragrostis capensis, Eragrostis curvula, Eragrostis plana, Hyparrhenia and filipendula. The vegetation type especial tree species are Acacia sieberiana, Barleria obtuse, Bulbostylis hispidula, Ceratoptheca triloba, Chamaecrista mimosoides, Clerodendrum glabrum, Clutia hirsute, Commelina Africana, Desmodium saligna, Diospyros lycioides, Drimiopsis maculate and Euphorbia tirucallii. The natural grasses and trees infested with alien plants along its perimeter and patchily throughout.



Figure 12: Actual Vegetation type as observed from the field assessment conducted.

A screening report done in singo consulting during application of this project confirmed that the proposed land is falls under Ecological Support Area. The area is regarded as more useful to the local biodiversity. Therefore species fall under Ecological Support Area should be conserved and maximise connectivity of natural areas. This also support the landscape level ecological functioning as well as the ability of ecosystem and species to climate change.

## 3.1.1.4 Fauna

The proposed land is still natural except small areas where erosion occurred, the status of the area it is still in good condition where most of fauna depend on the area for living. Small mammals, reptiles and insects are using the proposed land for habitat and living's needs.

Example of fauna species that might found in the proposed land are Reptilia-Dendroaspis angusticeps, Mammalia-Philantomba monticola, Myosorex cafer and Cercopithecus albogularis labiatus and Insecta-Durbania amakosa flavida, Durbania amakosa albescens. All the mentioned species in this paragraph are classified as medium sensitivity as confirmed by screening report.

## 3.1.1.5 Soil

The immediate layer of rock is Natal Sandstone, and this is evident in the natural rock exposed on the property by excavations and from scattered rock, and in the soil derived from it. The soil is a loose, sandy, medium brown loam soil. The soil is classified as Glenrosa soil, as it is naturally sandy. It is known as Mispah soil where the shallow layer of soil is bedded on hard rock. The Natal cluster sandstones are often envisaged as lying in two basically parallel belts within the coast belt and coast back country (Geological Survey, 1984). within the stratigraphic column the Natal Group rests on the basement granites, and below the tillites of the Dwyka Formation. Extensive faulting and down warp of the coast (Maud, 1968) has taken place giving rise to the sharp, but usually irregular boundaries with these geologic strata. Sandstones of the Natal cluster are usually exposed as flat to undulating tablelands, delimited by steep escarpments.

As confirmed by GIS specialist the area falls under soil classification Lithosols(shallow soils on hard or weathering rock), where the hard rock is surrounded by soil classification Freely drained, structureless soil. This type of soil is characterised by sand, red soil which is less productivity due to dominating of sand soils have severe limitations that reduce the choice of plants or that require special conservation practices, soils and miscellaneous areas have limitations that preclude commercial plant production and restrict their use to recreational purposes, wildlife habitat, or esthetic purposes.



Figure 13: Project area soil type



Figure 14: Actual view soil type of the area

# 3.1.1.6 Land capability of the area

The status of the area or land still considered as natural, few activities practiced within the proposed land, grazing is the one that confirmed during site assessment as cattle were seen around the area. It is also confirmed by GIS specialist that, the area is used for grazing purposes. This activity might lead to serious disturbance of natural state of the area since the area is not big enough to feed local domestic animals.



Figure 15: Land capability map of the area

Legend Mining Permit Area Farming Type Sugar	
	$\sum$
A	
0 0.2 0.4 0.6 km	Farming Type within a Mining Permit Area situated on a portion of the Remaining Extent of the farm Qiko 17448 ET and farm 17449 ET. Umzinto Magisterial District, Kwazulu Natal Province.

## Figure 16: Farming type of the proposed land

As we know that in most part of KZN province, they prefer sugarcane as the most farming type, due to the type of soil and land scape of the area. The climate of the area also contributes to the farmers to cultivate sugarcane.

# 3.1.1.7 Surface and ground water

#### Surface water

The regional hydrological setting of the project site is indicated in Figure 17. The mining area is in the Mvoti to Umzimkulu catchment of the Water Management Area (WMA). The main quaternary catchment is U10M. The WR2012 study, presents hydrological parameters for each quaternary catchment including area, mean annual precipitation (MAP) and mean annual runoff (MAR). Based on the WR2012 study, the project area falls within the quaternary catchment U10M. The total catchment area of U10M is 280 square metres, with a net MAR of 37.43 million cubic meters (mcm) and a MAP of 858 millimetre (mm).

The proposed project site is located next to the Mkomazi river. The study area is located within the Mvoti to Umzimkulu WMA, or Mvoti to Umzimkulu Water Management Area, Includes the following major rivers: the Mvoti River, Tongaat River, Mdloti River, Ohlanga river, Umgeni River, Sterkspruit River, Lovu River, Umkomazi River, Mzimayi River, Umzimkulu River and Mtamvuna River. A detailed surface water study will be done and will attached on the final report.



Figure 17: Quaternary catchment map of the proposed area

Figure 18 below illustrates the wetlands and Hydrology, respectively. There is a perennial river (Mkomazi) on the North- west side from the permit area. There is also a non-perennial stream approximately 200m away from the permit area, which flows from the Northern side to the southern side. There is one wetland namely, channelled valley-bottom wetland. A channelled valley bottom wetland is a wetland which a mostly flat wetland area located along a valley floor with a river channel running through it. The channelled valley-bottom wetland is on the North-West side of the permit area and is approximately 500m from the permit area. However, there are no streams/rivers or wetlands observed within the permit area. Hydrological Study for Mfolozi Mining (Pty) Ltd Granite/ Syenite Mining Application Permit.



#### Figure 18: Hydrological map of the proposed area

Perennial river (Mkomazi) is located approximately 1.69km North west of the proposed project and non-perennial river reflected on the map Figure 18 flowing towards Mkomazi river. Therefore, the proposed project will not have impact to the surrounding streams. Granite/Syenite rocks to be quarried have a more inert composition and show much lower rates of deterioration, they have lower water absorption, and are harder than marbles, limestones, and sandstones, therefore the chances of water quality contamination by this quarry are negligible. Also note that the chemical composition of Granite/Syenite (quarts and feldspars) does not contain pyrite mineral that causes acid mine drainage, therefore there will be no acid mine drainage in the river. Department would like to bring to your attention that any activity within a 500m radius from the boundary of a wetland requires a Water Use Authorisation in terms of Section 21 (c) and (i) National Water Act, 1998 (Act No. 36 of 1998) (NWA).



Figure 19: Mkomazi river located adjacent to the proposed project

## Ground water

As it is showed on the topographical map, the proposed project is situated in high elevation compared to the streams. Therefore, ground water flows from the area of proposed project to the streams. Groundwater study will be done for the area and will attached on this report as appendix.

## 3.1.1.8 Climate

KwaZulu Natal, is bordered by the Indian Ocean to the east and the Drakensberg Mountain escarpment to the west producing a warm, subtropical climate. The climate of KwaZulu Natal is tourist friendly all-year-round. Situated in the Southern Hemisphere the seasons are reversed, this means traveling from a Northern Hemisphere winter to KZN you will arrive in summer and experience warm weather, lush vegetation and a multitude of birds and animals.

**Summer** (November – February) are hot and humid averaging 28°C and experience the majority of the annual rainfall. Although summer is an excellent time to observe wildlife in prime condition,

the game is often obscured by tall grass and thick bush which flourishes in the rainy season. Heavy rains and electrical thunderstorms are common.

**Autumn** (March – May) in KZN are mild as temperatures begin to cool. This is a good time to see migrating birds gathering for their journey north.

Winter (June – August) with average temperatures of 23°C, are warm, dry and clear. There is occasional frost in the interior and snow often falls in the higher reaches during the winter. Winter sunshine averages almost seven hours a day, some of the highest in the country. Winters are dry and this is conducive to grass fires, most reserves provide areas for barbecues but caution is advised when open fires are lit.

**Spring** (September – October) is the beginning of the rainy season and temperatures begin to warm. This is often the perfect time for viewing game as most wildlife are raising newly born offspring on the fresh growth that arrives with the first rains. This is also the perfect time for viewing flowers as everything is blooming. Migrating birds begin to arrive back during spring and into summer. The precipitation varies 95 mm | 4 inch between the driest month and the wettest month. During the year, the average temperatures vary by 7.7 °C | 45.9 °F.

	January	February	March	April	May	June	July	August	September	October	November	December
Avg. Temperature (°C)	24.1	24.5	23.7	21.8	19.4	17.2	16.8	17.9	19.2	20.5	21.8	23.4
Min. Temperature (°C)	20.6	20.9	19.9	17.5	14.4	11.6	11.3	12.9	15	16.8	18.2	19.8
Max. Temperature (°C)	27.7	28.1	27.6	26.1	24.4	22.9	22.4	22.9	23.5	24.2	25.4	27
Avg. Temperature (°F)	75.4	76.1	74.7	71.2	66.9	63.0	62.2	64.2	66.6	68.9	71.2	74.1
Min. Temperature (°F)	69.1	69.6	67.8	63.5	57.9	52.9	52.3	55.2	59.0	62.2	64.8	67.6
Max. Temperature (°F)	81.9	82.6	81.7	79.0	75.9	73.2	72.3	73.2	74.3	75.6	77.7	80.6
Precipitation / Rainfall (mm)	124	113	125	71	56	30	31	46	64	95	110	110

#### Table 2: Durban weather by month / Weather average

## 3.1.1.9 Topography

The proposed mining area is situated within the gently undulating hills of the Mkomazi flood plain at an average elevation of 120m above mean sea level (amsl). The elevation interval in the entire property is 20m. the proposed permit is located between 100m to 160m above sea level (amsl). The surface topography is scattered with occasional river, hard rock and natural vegetations.



#### Figure 20: Topography of the project area.

## 3.1.1.10 Graves, heritage, archaeological and cultural resources

Site assessment was done to the proposed site, no sign of graves, heritage, and cultural resource identified during site assessment. Further investigation was done through a consultation the relevant stakeholders such as AMFA and SAHRA.

## 3.1.1.11 Noise

The surrounding land use is predominantly for grazing purposes and natural habitat for local fauna species. Mkomazi river is flowing adjacent to the proposed land. Therefore a natural noise occurs to the site since no major activities that might cause noise around the proposed area. Noise status will be change due to mining machineries.

#### 3.1.1.12 Visual exposure

The study area is located on the Remaining Extent of the farm Qiko 17448 ET, situated under the Magisterial District of Ugu, KwaZulu-Natal Province. The study area fits into the context of the surrounding region in that the area, which is predominantly characterized by natural vegetation. Mkomazi river is flowing adjacent to the proposed site. The study area is not near any declared protected area only domestic animals such as cattle and goats use the site for grazing.



Figure 21: Picture from the site shows the visual exposure

## 3.1.1.13 Socio-economic

Umdoni Local Municipality is located under the Ugu District Municipality in the KwaZulu-Natal province. It is made up of 10 wards, most of which are rural areas. Umdoni Municipality covers the areas of Amahlongwa, Amandawe, Umzinto, Ghandinagar, Shayamoya, Park Rynie, Scottburgh, Hazelwood, Asoka Heights, Malibu Heights, Pennington, Sezela, Ifafa, Bazley, Mtwalume, Malangeni and Esperanza.

The municipality can be divided into three major land uses, being commercial agriculture, traditional authority areas and coastal urban nodes. The coastline stretches approximately 40km. The town of Scottburgh is approximately 50km from the city of Durban and 65km from Port Shepstone. Main Economic Sectors: Commercial agriculture

# Table 3: Demographic Information summary

	2016	2011				
Population	144 551	130 413				
Age Structure						
Population under 15	36.4%	31.2%				
Population 15 to 64	58.7%	61.6%				
Population over 65	4.9%	7.2%				
Dependency Ratio						
Per 100 (15-64)	70.2	62.3				
Sex Ratio						
Males per 100 females	92.9	90.8				
Population Growth						
Per annum	2.34%	n/a				
Labour Market						
Unemployment rate (official)	n/a	n/a				
Youth unemployment rate (official) 15-34	n/a	n/a				
Education (aged 20 +)						
No schooling	10.6%	15.1%				
Matric	32.6%	25.6%				

	2016	2011
Higher education	7.5%	5.7%
Household Dynamics		
Households	35 433	34 191
Average household size	4.1	3.6
Female headed households	47.8%	47.2%
Formal dwellings	63.0%	56.6%
Housing owned	69.4%	56.8%
Household Services		
Flush toilet connected to sewerage	23.5%	23.8%
Weekly refuse removal	20.8%	35.6%
Piped water inside dwelling	23.5%	28.9%
Electricity for lighting	80.2%	60.6%

# 3.2 Description of current land uses

The current land uses in the region include fam, cultivation, waterbodies and buildings the map below Figure 22, also shows that the proposed site is fall within uncategorised land and degraded land which is outside the permit but within the property. Mkomazi river and non-perennial stream feeding the main river located adjacent to the proposed permit.



Figure 22: Land use map



Figure 23: Google view map shows the current land use of the proposed area with permit area circled by red

# 3.3 Description of site-specific environmental features and infrastructure

The following table provides a description of the land uses and/or prominent features that currently occur within a 500 m radius of the site:

Land use character	Yes	No	Description
Natural area	Yes		The area is virgin ground with vegetation cover.
			Immediate surrounding areas are being used by
			local live stalks for grazing and Mkomazi river flows
			adjacent to the proposed site. The proposed
			activity will entail land cover removal, granite
			extraction, crushing and hauling. These activities will
			be limited to sections demarcated for working
			purposes.
Low-density residential		No	
Medium-density residential		NO	
High-density residential		NO	
Informal residential		NO	· · · · · · · · · · · · · · · · · · ·
Refail commercial and		NO	
warenousing			
Light industrial		NO	
Medium industrial		NO	
Heavy industrial		NO	
Power station		NO	
Office/consulfing room		No	
Military or police base/		NO	
station/compound			
Soil heap or slimes dam		NO	
Quarry, sand, mine or borrow pit	M	NO	
Dam or reservoir	res		Dam is located far away from the proposed permit
Hospital/modical contro		No	but with the proposed form
School			
Tortigny education facility			
Church			
Train station or shunting yard			
Railway line			
Major (road 4 lines or more)			
River stream or wetland	Vas		Mkomazi river is situated about 1.56 km porthern
River, sirediff of wenderd	163		side away from the project area.
Agriculture		No	The project area is surrounded by land used for
			agricultural purposes, particularly crop farming.
Nature conservation area		No	
Mountain, hill or ridge	yes		The project area is within the mountainous area, the contour interval is 20m which range from 100m to 120m.
Museum		No	
Historical building		No	
Plantation		No	
Landfill/waste treatment site		No	
Archaeological sites		No	
Other land uses		No	

The site has not been formally developed. However, there is a gravel trail passes adjacent to the proposed area. The trail passes on the farm used by the nearest community to/from the river to fetch water as they use river water for domestic purposes if they not receive water from water tank distributed to the community by municipality.

The impact of the proposed mining area on the infrastructural features of the surrounding area is considered of low significance, as the impact of the mining activities will be concentrated within the 5 ha footprint area of the mine.

In order to mitigate the potential impact on the watercourse, storm water management will have to be implemented on-site. Storm water will have to be channelled around the mining area to prevent possible contamination of clean water flowing over dirty areas. If this is implemented, the proposed activity is not expected to have a negative effect on the surface water.



Figure 24: Figure showing nearest infrastructures from the proposed project

# 3.4 Environmental and current land use map

Show all environmental, and current land use features. Provide a list of the potential impacts identified of the activities described in the initial site layout that will be undertaken, as informed by both the typical known impacts of such activities, and as informed by the consultations with affected parties together with the significance, probability, and duration of the impacts. Please indicate the extent to which they can be reversed, the extent to which they may cause irreplaceable loss of resources, and can be avoided, managed or mitigated.



Figure 25: The environmental and current land use map, project area circled by red

# 3.5 Impacts and risks identified, including the nature, significance, consequence, extent, duration and probability of the impacts

Provide a list of the potential impacts identified of the activities described in the initial site layout that will be undertaken, as informed by both the typical known impacts of such activities, and as informed by the consultations with affected parties together with the significance, probability, and duration of the impacts. Please indicate the extent to which they can be reversed, the extent to which they may cause irreplaceable loss of resources, and can be avoided, managed or mitigated

The following potential impacts were identified of each main activity in each phase. The significance rating was determined using the methodology as explained under vi) Methodology Used in Determining and Ranking the Significance. The impact rating listed below was determined for each impact prior to bringing the proposed mitigation measures into consideration. The degree of mitigation indicates the possibility of partial, full or no mitigation of the identified impact.

## 3.5.1 Stripping and stockpiling of topsoil

Visual intrusion associated with the establishment of the mining area:

#### Rating: Medium – High

#### Degree of Mitigation: Partial

			Consequence		Likelihood	Significance
Severeness	Period	Range	Consequence	Prevalence	LIKEIIIIOOU	Significance
4	4	2	3	5	5	16

Dust nuisance caused by the disturbance of the soil

Rating: Medium

Degree of Mitigation: Partial

			Consequence		Likelihood	Significance
Severeness	Period	Range	Consequence	Prevalence	Likeimood	Significance
4	3	2	3	5	5	15

Noise nuisance caused by machinery stripping and stockpiling the topsoil

## Rating: Medium Degree of Mitigation: Partial

			Consequence		likelihood	Significance
Severeness	Period	Range	Consequence	Prevalence	LIKelinood	Jighneanee
3	4	2	2.5	4	3	14

Infestation of the topsoil heaps by weeds or invader plants

#### Rating: Medium Degree of Mitigation: Partial

			Consequence		likelihood	Significance
Severeness	Period	Range	consequence	Prevalence	LIKelinood	Signineance
4	4	2	3.3	5	5	13.5

Loss of topsoil due to incorrect storm water management

#### Rating: Medium Degree of Mitigation: Partial

			Consequence		Likelihood	Significance
Severeness	Period	Range	Consequence	Prevalence	LIKEIIIIOOU	Significance
3	3	2	3	4	5	13

Contamination of area with hydrocarbons or hazardous waste materials

#### Rating: Medium Degree of Mitigation: Partial

			Consequence		Likelihood	Significance
Severeness	Period	Range	consequence	Prevalence	Likelinood	Significance
4	4	2	3.3	5	5	14.5

# 3.5.2 STOCKPILING OF RUN OF MINE (ROM):

Visual intrusion associated with the establishment of the mining area

#### Rating: Medium – High

#### Degree of Mitigation: Partial

					Likelihood	Importance
Severeness	Period	Range	Consequence	Prevalence		
2	5	2	3	5	5	15

Clean annoyance caused by the unsettling influence of Pit activities

#### Rating: Medium – High

## **Degree of Mitigation: Partial**

					Likelihood	Importance
Severeness	Period	Range	Consequence	Prevalence		
2	4	2	2.9	4	5	14

Clean annoyance caused by stockpiling the ROM

#### Rating: Medium

#### Degree of Mitigation: Partial

			_		Likelihood	Importance
Severeness	Period	Range	Consequence	Prevalence		
2	4	2	2.7	5	5	10

Infestation of the topsoil heaps by weeds or invader plants

#### **Rating: Medium**

#### Degree of Mitigation: Fully Mitigated

			_		Likelihood	Importance
Severeness	Period	Range	Consequence	Prevalence		
3	4	2	2.5	4	4	11.8

Contamination of area with hydrocarbons or hazardous waste materials

## 3.5.3 BLASTING:

Health and safety risk posed by blasting activities

#### **Rating: Medium**

#### Degree of Mitigation: Fully Mitigated

			_		Likelihood	Importance
Severeness	Period	Range	Consequence	Prevalence		
4	3	1	3	2	4	10.5

Dust nuisance caused by blasting activities

Rating: Low – Medium

#### Degree of Mitigation: Not Mitigated

			_		Likelihood	Importance	
Severeness	Period	Range	Consequence	Prevalence			
2	1	2	1.7	2	3	5.5	
Nuclear and the second and the second device the second second second second second second second second second							

Noise nuisance caused by blasting activities

<b>Rating: Low</b>	/ – Medium
--------------------	------------

#### Degree of Mitigation: Partial

					Likelihood	Importance
Severeness	Period	Range	Consequence	Prevalence		
2	1	2	1.7	4	5	5.7

## 3.5.4 CRUSHING:

Dust nuisance due to the crushing activities

#### Rating: Medium

## Degree of Mitigation: Fully Mitigated

					Likelihood	Importance
Severeness	Period	Range	Consequence	Prevalence		
3	3	3	2.9	5	5	14

Noise nuisance generated by the crushing activities

Rating: Medium			Degree of Mitigation: Partial			
					Likelihood	Importance
Severeness	Period	Range	Consequence	Prevalence		
2	4	2	2.5	4	5	10

Contamination of area with hydrocarbons or hazardous waste materials

**Rating: Medium** 

#### Degree of Mitigation: Fully Mitigated

					Likelihood	Importance
Severeness	Period	Range	Consequence	Prevalence		
2	4	2	2.9	4	5	14
#### 3.5.5 STOCKPILING AND TRANSPORTING:

Visual intrusion associated with the stockpiled material and vehicles transporting the material

#### Rating: Medium

#### Degree of Mitigation: Fully Mitigated

					Likelihood	Importance
Severeness	Period	Range	Consequence	Prevalence		
2	4	2	2.5	4	4.5	11.5

Loss of material due to ineffective storm water handling

Rating: Low – Medium

#### Degree of Mitigation: Partial

			_		Likelihood	Importance
Severeness	Period	Range	Consequence	Prevalence		
2	4	1	2.4	4	3	8

Weed and invader plant infestation of the area due to the disturbance of the soil

<b>Rating</b> :	Low –	Medium
-----------------	-------	--------

#### Degree of Mitigation: Fully Mitigated

			_		Likelihood	Importance
Severeness	Period	Range	Consequence	Prevalence		
2	4	2	2.5	4	3	7.3

Dust nuisance from stockpiled material and vehicles transporting the material

#### Rating: Medium

#### Degree of Mitigation: Fully Mitigated

					Likelihood	Importance
Severeness	Period	Range	Consequence	Prevalence		
2	3	2	2.2	4	3	4.8
		Dogrado	tion of googa	raada		

Degradation of access roads

#### **Rating: Medium**

#### Degree of Mitigation: Fully Mitigated

					Likelihood	Importance
Severeness	Period	Range	Consequence	Prevalence		
3	3	2	2.3	4	4	4.9

Noise nuisance caused by vehicles

#### Rating: Medium

#### **Degree of Mitigation: Partial**

			Concoguonco		Likelihood	Importance
Severeness	Period	Range	Consequence	Prevalence		
2	3	2	2.5	4	4	10

Contamination of area with hydrocarbons or hazardous waste materials

# 3.5.6 Sloping and landscaping during rehabilitation

Soil erosion

#### Rating: Low

			Consequence			likelihood	Significance
Severity	Duration	Extent		Probability	Frequency	LIKEIIIIOOU	Significance
4	1	1	2	2	1	1.5	3

Health and safety risk posed by un-sloped areas.

#### Rating: Low

			Consequence			Likelihood	Significance
Severity	Duration	Extent	Consequence	Probability	Frequency	LIKelillood	Significance
4	1	1	2	2	1	1.5	3

Dust nuisance caused during sloping and landscaping activities.

#### **Rating: Low**

						Likelihoo	Significanc
Severit	Duration	Extent	Consequence	Probabilit	Frequenc	d	e
У				У	У	-	-

Noise nuisance caused by machinery.

#### Rating: Low

			Consequence			Likelihood	Significance
Severity	Duration	Extent		Probability	Frequency	LIKEIIIIOOG	Significance
2	1	2	1.6	2	1	1.5	2.4

Contamination of area with hydrocarbons or hazardous waste materials.

#### **Rating: Low**

			Consequence			likelihood	Significance
Severity	Duration	Extent	consequence	Probability	Frequency	LIKEIIIIOOG	Significance
4	1	1	2	2	1	1.5	3

#### 3.5.7 Replacing of topsoil and rehabilitation of disturbed area

Loss of reinstated topsoil due to the absence of vegetation.

#### **Rating: Low**

			Consequence			Likelihood	Significance
Severity	Duration	Extent	consequence	Probability	Frequency	Likeiniood	orgrinicariee
3	1	1	1.6	3	2	2.5	4

Infestation of the area by weed and invader plants.

# Rating: Low

			Consequence			Likelihood	Significance
Severity	Duration	Extent	consequence	Probability	Frequency	LIKEIIIIOOG	Significance
3	1	1	1.6	2	2	2	3.2

# 3.6 Methodology for the assessment of the potential environmental, social and cultural impacts

Describe how the significance, probability, and duration of the aforesaid identified impacts that were identified through the consultation process was determined in order to decide the extent to which the initial site layout needs revision.

# 3.6.1 Definitions and concepts

# 3.6.1.1 Environmental significance

The concept of significance is at the core of impact identification, evaluation and decision making. The concept remains largely undefined and there is no international consensus on a single definition. The following common elements are recognised from the various interpretations:

- Environmental significance is a value judgement.
- The degree of environmental significance depends on the nature of the impact.
- The importance is rated in terms of both biophysical and socio-economic values.
- Determining significance involves the amount of change to the environment perceived to be acceptable to affected communities.

Significance can be differentiated into impact magnitude and impact significance. Impact magnitude is the measurable change (i.e. intensity, duration and likelihood). Impact significance is the value placed on the change by different affected parties (i.e. level of acceptability) (DEAT (2002) Impact Significance, Integrated Environmental Management, Information Series 5).

The concept of risk has two dimensions, namely the consequence of an event or set of circumstances, and the likelihood of particular consequences being realised (Environment Australia (1999) Environmental Risk Management).

# 3.6.1.2 Impact

The positive or negative effects on human well-being and/or the environment.

# 3.6.1.3 Consequence

The intermediate or final outcome of an event or situation, or the result on the environment of an event.

# 3.6.1.4 Likelihood

A qualitative term covering both probability and frequency.

# 3.6.1.5 Frequency

The number of occurrences of a defined event in a given time or rate.

# 3.6.1.6 Probability

The likelihood of a specific outcome measured by the ratio of a specific outcome to the total

number of possible outcomes.

# 3.6.1.7 Environment

Surroundings in which an organisation operates, including air, water, land, natural resources, flora, fauna, humans and their interrelation (ISO 14004, 1996).

# 3.6.1.8 Methodology that will be used

The environmental significance assessment methodology is based on the following determination:

# ENVIRONMENTAL SIGNIFICANCE = OVERALL CONSEQUENCE X OVERALL LIKELIHOOD

# Determination of overall consequence

Consequence analysis is a mixture of quantitative and qualitative information; the outcome can be positive or negative. Several factors determine consequence. For the purpose of determining the environmental significance in terms of consequence, the following factors were chosen: **Severity/Intensity, Duration and Extent/Spatial Scale**. Each factor is assigned a rating of 1 to 5, as described in the following tables.

# Determination of severity/intensity

**Severity** relates to the nature of the event, aspect or impact on the environment and describes how severe the aspects impact the biophysical and socio-economic environment. The following section indicates the overall rating for severity, taking into consideration the various criteria.

Type of	Rating							
criteria	1	2	3	4	5			
Quantitative	0-20%	21-40%	41-60%	61-80%	81-100%			
Qualitative	Insignificant/ No	Small /	Significant/	Great/very	Disastrous,			
	harmful	Potentially	harmful	harmful	extremely			
		harmful			harmful			
Social/	Acceptable/	Slightly	Intolerable/	Unacceptable/	Totally			
community	I&AP satisfied	tolerable /	sporadic	widespread	unacceptable/			
response		Possible	complaints	complaints	possible legal			
		objections			action			
Irreversibility	Very low cost to	Low cost to	Substantial	High cost to	Prohibitive cost			
	mitigate/	mitigate	cost to	mitigate	to mitigate/			
	High potential		mitigate/		Little or no			
	to mitigate		potential to		mechanism to			
	impacts to level		mitigate		mitigate impact			
	of		impacts/		Irreversible			
	insignificance/		potential to					
	easily reversible		reverse impact					
Biophysical	Insignificant	Moderate	Significant	Very significant	Disastrous			
(air quality,	change/	change/	change/	change/	change/			
water	deterioration or	deterioration	deterioration	deterioration or	deterioration or			
quantity	disturbance	or	or disturbance	disturbance	disturbance			
and quality,		disturbance						
waste								
production,								

# 3.6.1.9 Severity rating

fauna and			
flora)			

# Determination of duration

Duration refers to the amount of time that the environment will be affected by the event, risk or impact, if no intervention e.g. remedial action takes place.

# Rating of duration

Rating	Description
1	Up to 1 month
2	1-3 months (quarter)
3	3-12 months
4	1-10 years
5	Beyond 10 years

# Determination of extent/spatial scale

Extent or spatial scale is the area affected by the event, aspect or impact.

# Rating of extent/spatial scale

Rating	Description
1	Immediate, fully contained area
2	Surrounding area
3	Within business unit area of responsibility
4	Within the farm/neighboring farm area
5	Regional, national, international

#### Determination of overall consequence

Overall consequence is determined by adding the factors determined above and summarised below, and dividing the sum by 3.

#### Example of calculating overall consequence

Consequence	Rating
Severity	Example 4
Duration	Example 2
Extent	Example 4
Subtotal	10
Total consequence (subtotal divided by 3)	3.3

#### **DETERMINATION OF LIKELIHOOD**

The determination of likelihood is a combination of Frequency and Probability. Each factor is assigned a rating of 1 to 5, as described in the following.

#### Determination of frequency

Frequency refers to how often the specific activity, related to the event, aspect or impact, is undertaken.

#### Rating of frequency

Rating	Description
1	Once a year or once/more during operation
2	Once/more in 6 months
3	Once/more a month
4	Once/more a week
5	Daily

#### Determination of probability

Probability refers to how often the activity or aspect has an impact on the environment.

#### Rating of probability

Rating	Description
1	Almost never/almost impossible
2	Very seldom/highly unlikely
3	Infrequent/unlikely/seldom
4	Often/regularly/likely/possible
5	Daily/highly likely/definitely

# **Overall likelihood**

Overall likelihood is calculated by adding the factors determined above and summarised below, and dividing the sum by 2.

# Example of calculating overall Likelihood

Consequence	Rating
Frequency	Example 4
Probability	Example 2
Subtotal	6
Total likelihood (subtotal divided by 2)	3

# 3.6.2 Determination of overall environmental significance

The multiplication of overall consequence with overall likelihood will provide the environmental significance, which is a number that will fall into a range of low, low-medium, medium, mediumhigh or high, as shown in the table below.

# 3.6.2.1 Determination of overall environmental significance

Significance or risk	Low	Low-medium	Medium	Medium-high	High
Overall	1-4.9	5-9.9	10-14.9	15–19.9	20-25
consequence					
X overall					
likelihood					

# 3.6.2.2 Qualitative description or magnitude of environmental significance

Significance or risk	Low	Low-medium	Medium	Medium-high	High
Impact magnitude	Impact is of very low order and therefore likely to have very little real effect.	Impact is of low order and therefore likely to have little real effect. Acceptable.	Impact is real, and potentially substantial in relation to other impacts. Can pose a risk to company	Impact is real and substantial in relation to other impacts. Pose a risk to the company.	Impact is of the highest order possible. Unacceptable. Fatal flaw.
Action required	Maintain current management measures. Where possible improve.	Maintain current management measures. Implement monitoring and evaluate to determine potential increase in risk. Where possible improve.	Implement monitoring. Investigate mitigation measures and improve management measures to reduce risk, where possible.	Improve management measures to reduce risk.	Implement significant mitigation measures or implement alternatives.

This description is qualitative and an indication of the nature or magnitude environmental significance. It guides the prioritisations and decision-making process associated with this event, aspect or impact.

# 3.6.3 Description of environmental significance and related action required

Based on the above, the significance rating scale has been determined as follows:

- High Of the highest order possible within the bounds of impacts which could occur. In the case of negative impacts, there would be no possible mitigation and/or remedial activity to offset the impact at the spatial or time scale for which it was predicted. In the case of positive impacts, there is no real alternative to achieving the benefit.
- Medium-high Impacts of a substantial order. In the case of negative impacts, mitigation and/or remedial activity would be feasible but difficult, expensive, time consuming or some combination of these. In the case of positive impacts, other means of achieving this benefit would be feasible, but these would be more difficult, expensive, time-consuming or some combination of these.
- Medium Impact would be real but not substantial within the bounds of those, which could occur. In the case of negative impacts, mitigation and/or remedial activity would be both feasible and fairly easily possible. In case of positive impacts, other means of achieving these benefits would be about equal in time, cost and effort.
- Low-medium Impact would be of a low order and with little real effect. In the case of negative impacts, mitigation and/or remedial activity would be either easily achieved of little would be required, or both. In case of positive impacts alternative means for achieving this benefit would likely be easier, cheaper, more effective, less time-consuming, or some combination of these.
- Low impact In the case of negative impacts, almost no mitigation and or remedial activity would be needed, and any minor steps, which might be needed, negligible would be easy, cheap and simple. In the case of positive impacts, alternative means would almost all likely be better, in one or a number of ways, than this means of achieving the benefit.
- Insignificant There would be a no impact at all not even a very low impact on the system or any of its parts.

# 3.7 The positive and negative impacts that the proposed activity (in terms of the initial site layout) and alternatives will have on the environment and the community that may be affected

Provide a discussion in terms of advantages and disadvantages of the initial site layout compared to alternative layout options to accommodate concerns raised by affected parties.

The proposed granite mine will be established on a brown field which is being utilize for grazing with medium vegetation cover. Due to the distance from residential area to the mine, little to no significantly negative impacts on the community could be identified. The dust and noise impacts that may emanate from the mining area during the operational phase could have a negative impact on the surrounding community if the mitigation measures proposed in this document are not implemented and managed on-site. The operation of the mine will, however, also have a number of positive impacts, such as permanent job creation for skilled, semi-skilled and un-skilled workers. The proposed mine will, therefore, contribute to upgrading/ maintaining infrastructure in and around area, which will indirectly contribute to the economy of the area.

# 3.8 The possible mitigation measures that could be applied and the level of risk

With regard to the issues and concerns raised by affected parties provide a list of the issues raised and an assessment/discussion of the mitigation or site layout alternatives available to accommodate or address their concerns, together with an assessment of the impacts or risks associated with the mitigation or alternatives considered.

# 3.8.1 Visual mitigation

The risk of the proposed mining activities having a negative impact on the aesthetic quality of the surrounding environment can be reduced to medium risk through the implementation of the following mitigation measures:

- The site must be kept neat and in good condition at all times.
- Upon closure, the site must be rehabilitated and sloped to ensure that the visual impact on the aesthetic value of the area is minimal.

# 3.8.2 Dust handling

The risk of dust generated from the proposed mining activities having a negative impact on the surrounding environment can be reduced to low-medium through the implementation of the following mitigation measures:

- Dust liberation into the surrounding environment must be effectively controlled using *inter alia*, water spraying and/or other dust-allaying agents.
- The site manager must ensure continuous assessment of all dust suppression equipment to confirm its effectiveness in addressing dust suppression.
- Access road speeds must be limited to 40km/h to prevent excessive dust generation.

- Roads must be sprayed with water or an environmentally friendly dust allaying agent, that contains no Polychlorinated Biphenyl (PCBs) (e.g. DAS products), if dust is generated above acceptable limits.
- The in-pit crusher plant must have operational water sprayers to alleviate dust generation from the conveyor belts.

# 3.8.3 Noise handling

The risk of noise, generated from the proposed mining activities, having a negative impact on the surrounding environment can be reduced to low-medium through the implementation of the following mitigation measures:

- The applicant must ensure that employees and staff conduct themselves in an acceptable manner while on site, both during work hours and after hours.
- No loud music may be permitted at the mining area.
- All mining vehicles must be equipped with silencers and kept roadworthy in terms of the Road Transport Act.
- The type, duration and timing of the blasting procedures must be planned with due cognisance of other land users and structures in the vicinity.
- Surrounding landowners must be notified, in writing, prior to blasting occasions.

# 3.8.4 Management of weed or invader plants

The risk of weeds or invader plants invading the disturbed area can be reduced to low through the implementation of the following mitigation measures:

- A weed and invader plant control management plan must be implemented at the site to ensure eradication of all listed invader plants in terms of Conservation of Agricultural Act (Act No 43 1983).
- Management must take responsibility to control declared invader or exotic species on the rehabilitated areas. The following control methods can be used:
  - The plants can be uprooted, felled or cut off and destroyed completely.
  - The plants can be treated with an herbicide that is registered for use in connection therewith and in accordance with the directions for the use of such an herbicide.
- The temporary topsoil stockpiles must be kept free of weeds.

# 3.8.5 Storm water handling

The risk of contamination through dirty storm water escaping from work areas, or erosion or loss of material caused by uncontrolled storm water flowing through the mining area, can be reduced to low by implementing the following mitigation measures:

- Storm water must be diverted around the topsoil heaps, stockpile areas and access roads to prevent erosion and loss of material.
- Runoff water must also be diverted around the stockpile areas with trenches and contour structures to prevent erosion of the work areas.
- Mining must be conducted in accordance with the Best Practice Guideline for small scale mining that relates to storm water management, erosion and sediment control and waste management, developed by the Department of Water and Sanitation (DWS), and any other conditions the DWS may impose:
  - Clean water (e.g. rainwater) must be kept clean and routed to a natural watercourse by a system separate from the dirty water system. Clean water must be prevented from running or spilling into dirty water systems.
  - Dirty water must be collected and contained in a system separate from the clean water system.
  - Dirty water must be prevented from spilling/seeping into clean water systems.
  - The storm water management plan must apply for the entire life cycle of the mine and over different hydrological cycles (rainfall patterns).
  - The statutory requirements of various regulatory agencies and the interests of stakeholders must be considered and incorporated into the storm water management plan.

# 3.8.6 Management of health and safety risks

The health and safety risk posed by the proposed mining activities can be reduced to low through the implementation of the following mitigation measures:

- The type, duration and timing of the blasting procedures must be planned with due cognisance of other land users and structures in the vicinity,
- The surrounding landowners and communities must be informed, in writing, ahead of any blasting event.
- Measures to limit fly rock must be taken.
- Audible warning of a pending blast must be given at least 3 minutes before the blast.
- All fly rock (with diameters of 150 mm and larger) which falls beyond the working area, together with the rock spill, must be collected and removed,
- Workers must have access to the correct PPE, as required by law.
- All operations must comply with the Occupational Health and Safety Act (OHSA).

# 3.8.7 Waste management

The risk of waste generation having a negative impact on the surrounding environment can be reduced to low through by implementing the following mitigation measures:

- No processing area or waste pile may be established within 100 m of the edge of any river channel or other water bodies.
- Regular vehicle maintenance may only take place within the service bay area of the offsite. If emergency repairs are needed on equipment unable to move off site, drip trays must be present. All waste products must be disposed of in a 200 L closed container/bin to be removed from the emergency service area to ensure proper disposal.
- Any effluents containing oil, grease or other industrial substances must be collected in a suitable receptacle and removed from the site, either for resale or for appropriate disposal at a recognised facility.
- Spills must be cleaned up immediately to the satisfaction of the Regional Manager by removing the spillage and the polluted soil and disposing of it at a recognised facility. Proof hereof should be filed.
- Suitable covered receptacles should be available always and conveniently placed for waste disposal.
- Non-biodegradable refuse, such as glass bottles, plastic bags, metal scrap, etc., should be stored in a container with a closable lid at a collecting point, collected on a regular basis and disposed of at a recognised landfill site. Specific precautions should be taken to prevent refuse from being dumped on or near the mine area.
- Biodegradable refuse generated should be handled as indicated above.

# 3.8.8 Management of access roads

The risk on the condition of the roads, as a result of the proposed mining activities, can be reduced to low-medium by implementing the following mitigation measures:

- Storm water must be diverted around the access roads to prevent erosion.
- Erosion of access road: Vehicular movement must be restricted to existing access routes to prevent criss-crossing of tracks through undisturbed areas. Rutting and erosion of the access road as a result of the mining activities should be repaired by the applicant.

# 3.8.9 Topsoil handling

The risk of topsoil loss can be reduced to low by implementing the following mitigation measures:

• Where applicable, the first 300 mm of topsoil should be removed in strips and stored along the boundary of the mining area. Stockpiling of topsoil must be done to protect it from erosion, which includes mixing it with overburden or other material. The topsoil must be

used to cover the rehabilitated area and improve the establishment of natural vegetation.

- The temporary topsoil stockpiles of each removed strip must be kept weed free.
- Topsoil stockpiles must be placed on a levelled area and measures should be implemented to safeguard the piles from being washed away in the event of heavy rain/storm water.
- Topsoil heaps should not exceed 1.5 m, to preserve micro-organisms in the topsoil, which can be lost due to compaction and lack of oxygen.
- Should natural vegetation not establish on the heaps within 6 months of stockpiling, it must be planted with an indigenous grass species.
- Storm and runoff water should be diverted around the stockpile area and access roads to prevent erosion.

# 3.8.10 Protection of fauna and flora

The risk on the fauna and flora of the footprint area, as well as the surrounding environment, as a result of the proposed mining activities, can be reduced to low by implementing the following mitigation measures:

- The site manager must ensure that no fauna is caught, killed, harmed, sold or played with.
- Workers must be instructed to report any animals that may be trapped in the working area.
- No snares may be set or nests raided for eggs or young.
- No plants or trees may be removed without the approval of the Environmental Control Officer (ECO).

# 3.9 Motivation where no alternative sites were considered

The applicant identified the growing need for granite resources due to an increase in construction and infrastructure maintenance. In this light, the applicant identified the proposed area as the preferred and only viable site alternative because of its immediate availability backed by data reviewed during site assessment, which has proven that granite resources are available in the area. The establishment of a pit in this un-utilised area was found to be most viable.

Various project alternatives were considered during the planning phase of the project and the preferred alternatives proved to be:

- The pit mining has been identified as the most effective method to produce the desired applied mineral product.
- The use of temporary infrastructure will reduce the impact on the environment and

decrease closure objectives with regard to infrastructure decommissioning.

#### 3.10 Statement motivating the alternative development location within overall site

Provide a statement motivating the final site layout that is proposed.

The pit mining has been identified as the most cost-effective method to produce the desired applied mineral product. The proposed method will produce any residual (overburden) waste to be disposed of. Due to the remote location of the pit, the potential impacts on the surrounding environment, associated with pit mining, is considered of low significance. It is proposed that all mining-related infrastructure will be contained within the boundaries of the mining area. As no permanent infrastructure will be established on site, the layout/position of the temporary infrastructure will be determined by the mining progress and available space in the 5 ha mining area.

# 3.11 Process undertaken to identify, assess and rank impacts and risk of site activities

Full description of the process undertaken to identify, assess and rank the impacts and risks the activity will impose on the preferred site (In respect of the final site layout plan) through the life of the activity, including (i) a description of all environmental issues and risks that were identified during the environmental impact assessment process and (ii) an assessment of the significance of each issue and risk and an indication of the extent to which the issue and risk could be avoided or addressed by the adoption of mitigation measures.

During the impact assessment process, several potential impacts were identified of each main activity in each phase (3.12). An initial significance rating was determined for each potential impact, should the mitigation measures proposed in this document not be implemented on-site. The impact assessment process continued to identify mitigation measures to address the impact that the proposed mining activity may have on the surrounding environment. A significance rating was again determined for each impact using a relevant methodology. The impact ratings listed in the following section was determined for each impact after bringing the proposed mitigation measures into consideration and therefore represents the final layout/activity proposal.

Visual intrusion associated with the establishment of the mining area:

#### Rating: Medium – High

**Degree of Mitigation: Partial** 

			Consequence		Likelihood	Significance
Severeness	Period	Range		Prevalence		
4	4	2	3	5	5	16

Dust nuisance caused by the disturbance of the soil

#### Rating: Medium Degree of Mitigation: Partial

			Consequence		likelihood	Significance
Severeness	Period	Range	Consequence	Prevalence	LIKelinood	Jighinculice
4	3	2	3	5	5	15

Noise nuisance caused by machinery stripping and stockpiling the topsoil

#### Rating: Medium Degree of Mitigation: Partial

			Consequence		likelihood	Significance
Severeness	Period	Range	Consequence	Prevalence	Likelinood	Significance
3	4	2	2.5	4	3	14

Infestation of the topsoil heaps by weeds or invader plants

#### Rating: Medium Degree of Mitigation: Partial

			Consequence		likelihood	Significance
Severeness	Period	Range	Consequence	Prevalence	Likeimood	Significance
4	4	2	3.3	5	5	16.5

Loss of topsoil due to incorrect storm water management

#### Rating: Medium Degree of Mitigation: Partial

			Consequence		Likelihood	Significance
Severeness	Period	Range	consequence	Prevalence	Lincollinood	orgrinicence
3	3	2	3	4	5	13

Contamination of area with hydrocarbons or hazardous waste materials

#### Rating: Medium

#### Degree of Mitigation: Partial

				Consequence		likelihood	Significance
Severen	ess	Period	Range	consequence	Prevalence	LIKEIIIIOOG	Significance
4		4	2	3.3	5	5	14.5

# 3.11.1 STOCKPILING OF RUN OF MINE (ROM):

Visual intrusion associated with the establishment of the mining area

#### Rating: Medium – High

#### Degree of Mitigation: Partial

					Likelihood	Importance
Severeness	Period	Range	Consequence	Prevalence		
2	5	2	3	5	5	15

Clean annoyance caused by the unsettling influence of Pit activities

Rating: Medium – High

#### Degree of Mitigation: Partial

			_		Likelihood	Importance
Severeness	Period	Range	Consequence	Prevalence		
2	4	2	2.9	4	5	14

Clean annoyance caused by stockpiling the ROM

**Rating: Medium** 

#### Degree of Mitigation: Partial

			_		Likelihood	Importance
Severeness	Period	Range	Consequence	Prevalence		
2	4	2	2.7	5	5	13

Infestation of the topsoil heaps by weeds or invader plants

#### Rating: Medium

#### Degree of Mitigation: Fully Mitigated

			_		Likelihood	Importance
Severeness	Period	Range	Consequence	Prevalence		
3	4	2	2.5	4	4	11.8

Contamination of area with hydrocarbons or hazardous waste materials

#### 3.11.2 BLASTING:

Health and safety risk posed by blasting activities

#### Rating: Medium

#### Degree of Mitigation: Fully Mitigated

					Likelihood	Importance
Severeness	Period	Range	Consequence	Prevalence		
4	3	1	3	2	4	9.5

Dust nuisance caused by blasting activities

Rating: Low – Medium

#### Degree of Mitigation: Not Mitigated

					Likelihood	Importance
Severeness	Period	Range	Consequence	Prevalence		
2	1	2	1.7	2	3	5.5

Noise nuisance caused by blasting activities

Rating: Low – Medium

#### **Degree of Mitigation: Partial**

					Likelihood	Importance
Severeness	Period	Range	Consequence	Prevalence		
2	1	2	1.7	4	5	4.5

# 3.11.3 CRUSHING:

Rating: Medium

Dust nuisance due to the crushing activities

			-	•	•	
					Likelihood	Importance
Severeness	Period	Range	Consequence	Prevalence		
3	3	3	2.9	5	5	14

Degree of Mitigation: Fully Mitigated

Noise nuisance generated by the crushing activities

#### Rating: Medium

#### Degree of Mitigation: Partial

			_		Likelihood	Importance
Severeness	Period	Range	Consequence	Prevalence		
2	4	2	2.5	4	5	10

Contamination of area with hydrocarbons or hazardous waste materials

#### Rating: Medium

Degree of Mitigation: Fully Mitigated

					Likelihood	Importance
Severeness	Period	Range	Consequence	Prevalence		
2	4	2	2.9	4	5	9.9

# 3.11.4 STOCKPILING AND TRANSPORTING:

Visual intrusion associated with the stockpiled material and vehicles transporting the material

#### Degree of Mitigation: Fully Mitigated

					Likelihood	Importance
Severeness	Period	Range	Consequence	Prevalence		
2	4	2	2.5	4	4.5	8.5

Loss of material due to ineffective storm water handling

Rating: Low – Medium

Degree of Mitigation: Partial

			_		Likelihood	Importance
Severeness	Period	Range	Consequence	Prevalence		
2	4	1	2.4	4	3	8

Weed and invader plant infestation of the area due to the disturbance of the soil

Rating: Low – Medium

Degree of Mitigation: Fully Mitigated

			_		Likelihood	Importance
Severeness	Period	Range	Consequence	Prevalence		
2	4	2	2.5	4	3	7.5

Dust nuisance from stockpiled material and vehicles transporting the material

Rating: Medium			Degree o	f Mitigation:	Fully Mitigat	ed
					Likelihood	Importance
Severeness	Period	Range	Consequence	Prevalence		
2	3	2	2.5	4	5	10

Degradation of access roads

#### Degree of Mitigation: Fully Mitigated

			_		Likelihood	Importance
Severeness	Period	Range	Consequence	Prevalence		
3	3	2	2.7	4	4	11.5
				huunhialaa		

Noise nuisance caused by vehicles

#### **Rating: Medium**

# Degree of Mitigation: Partial

					Likelihood	Importance
Severeness	Period	Range	Consequence	Prevalence		
2	3	2	2.5	4	4	10

Contamination of area with hydrocarbons or hazardous waste materials

# 3.11.5 Sloping and landscaping during rehabilitation

Soil erosion

#### **Rating: Low**

			Consequence		likelihood	Importance	
Severeness	period	Range	Consequence	Prevalence	Lincennood	Impondince	
4	1	1	2	1	1.5	3	

Health and safety risk posed by un-sloped areas.

#### **Rating: Low**

			Consequence		Likelihood	Importance
Severeness	Period	Range	consequence	Prevalence	Likelinood	
4	1	1	2	1	1.5	3

Dust nuisance caused during sloping and landscaping activities.

#### **Rating: Low**

			Consequence		Likelihood	Importance	
Severeness	Period	Range	consequence	Prevalence	LIKCIIIIOOG	impondice	
1	1	1	1	1	1.5	1.5	

Noise nuisance caused by machinery.

#### **Rating: Low**

			Consequenc	Likelihood Importan		Importance	
Severeness	Period	Range	e	Prevalence	Lincennood	impondince	
2	1	2	1.6	1	1.5	2.4	

Contamination of area with hydrocarbons or hazardous waste materials.

#### **Rating: Low**

			Consequence		Likelihood	Importance
Severeness	Period	Range	consequence	Prevalence	Likelinood	imponunce
4	1	1	2	1	1.5	3

#### 3.11.6 Replacing of topsoil and rehabilitation of disturbed area

Loss of reinstated topsoil due to the absence of vegetation.

#### **Rating: Low**

			Consequence		Likelihood	Importance
Severeness	Period	Range	Consequence	Prevalence	Lincennood	
3	1	1	1.6	2	2.5	4

Infestation of the area by weed and invader plants.

#### Rating: Low

			Consequence		likelihood	Importance
Severeness	Period	Range	consequence	Prevalence	Likelinood	
3	1	1	1.6	2	2	3.2

# 3.12 Assessment of each identified potentially significant impact and risk

This section of the report must consider all the known typical impacts of each of the activities (including those that could or should have been identified by knowledgeable persons and not only those that were raised by registered I&APs).

NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE	MITIGATION TYPE	SIGNIFICANCE
E.g. for prospecting - drill site, site camp, ablution facility, accommodation, equipment storage, sample storage, site office and access route. E.g. for mining - excavations, blasting, stockpiles, discard dumps or dams, loading, hauling and transport, water supply dams, boreholes, accommodation, offices, ablution, stores workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc.	Including the potential impacts for cumulative impacts, e.g. dust, noise, drainage, surface disturbance, fly rock and surface water contamination, groundwater contamination, and air pollution.		In which impact is anticipated, e.g. construction, commissioning, operational decommissioning, closure, post- closure.	if not mitigated	Modify, remedy, control, or stop through, e.g. noise control measures, storm water control, dust control, rehabilitation, design measures, blasting controls, avoidance, relocation and alternative activity. Modify through alternative method. Control through noise control. Control through management and monitoring through rehabilitation.	if mitigated
Stripping and stockpiling of topsoil	Visual intrusion associated with the establishment of the mining area	The visual impact may affect the residents of the immediate area.	Site establishment /construction phase	Medium – High	Control: Implementation of proper housekeeping	Medium
	Dust nuisance caused by the disturbance of soil	Dust will be contained within the property boundaries and will therefore affect only the landowner.		Medium	Control: Dust suppression	Low
	Noise nuisance caused by machinery stripping and stockpiling the topsoil	The noise impact should be contained within the boundaries of the property but might have a periodic impact on the closest residents.		Medium	Control: Noise control measures	Low
	Infestation of the topsoil heaps by	Biodiversity		Low-medium	Control and remedy: Implementation of weed	Low

NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE	MITIGATION TYPE	SIGNIFICANCE
	weeds and				control	
	invader plants					
	Loss of topsoil due	Loss of topsoil will		Medium	Control: Storm water	Low
	to incorrect storm	affect the			management	
	water	rehabilitation of the				
	management	mining area.				
	Contamination of	Contamination may		Medium-high	Control and remedy:	Low
	area with	cause surface or			Implementation of waste	
	hydrocarbons or	ground water			management	
	hazardous waste	contamination if not				
	materials	addressed				
Blasting	Health and safety	Impact might affect	Operational	Medium	Control: Health and safety	Low
	risk posed by	the employees working	phase		monitoring and	
	blasting activities	on site			management	
	Dust nuisance	Depends on the blast,		Low-medium	Control: Dust suppression	Low-medium
	caused by	the impact might				
	blasting activities.	affect the surrounding				
		community. Blasting				
		will occur twice a year.				
	Noise nuisance	Dependent on the		Low-medium	Control: Noise control	Low
	caused by	blast, the impact might			measures	
	blasting activities	affect the surrounding				
		community. Blasting				
		will occur twice a year.				
Excavation	Visual intrusion	The visual impact may	Operational	Medium-high	Control: Implementation of	Medium
	associated with	affect the residents of	phase		proper housekeeping	
	the excavation	the immediate area.				
	activities					
	Dust nuisance due	Dust will be contained		Medium	Control: Dust suppression	Low
	to excavation	within the property				
	activities	boundaries and will				
		therefore affect only				
		the landowner.				
	Noise nuisance	The noise impact should		Medium-high	Control: Noise control	Low
	generated by	be contained within the			measures	

NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE	MITIGATION TYPE	SIGNIFICANCE
	excavation equipment	boundaries of the property, but might				
		on the closest residents				
	Unsafe working conditions for employees	Impact might affect employees.		Low	Control: Health and safety monitoring and management	Low
	Negative impact on the fauna and flora of the area	Biodiversity		Medium	Control: Protection of fauna and flora through operational phase	Low
	Contamination of area with hydrocarbons or hazardous waste materials	Contamination may cause surface or ground water contamination if not addressed.		Medium	Control: Implementation of waste management	Low
	Weed and invader plant infestation	Biodiversity		Low-medium	Control: Implementation of weed control	Low
Crushing	Dust nuisance due to the crushing activities	Dust will be contained in property boundaries and therefore affect only the landowner.	Operational phase	Medium	Control: Dust suppression	Low-medium
	Noise nuisance generated by the crushing activities	The noise impact should be contained within the boundaries of the property, but might have a periodic impact on the closest residents		Medium	Control: Noise control measures	Low-medium
	Contamination of area with hydrocarbons or hazardous waste materials	Contamination may cause surface or ground water contamination if not addressed		Medium	Control: Implementation of waste management	Low
Stockpiling and transporting	Visual intrusion associated with the stockpiled material	The visual impact may affect the residents of the immediate area.	Operational phase	Medium	Control: Implementation of proper housekeeping	Low-medium

NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE	MITIGATION TYPE	SIGNIFICANCE
	and vehicles					
	transporting the					
	material	lean act will offer at			Control Storm water control	
	Loss of material aue	impact will attect		Low-meaium	Control: Storm water control	LOW
	water bandling	income of applicant.			medsores	
	Weed and invader	Biodiversity		Low-medium	Control and remedy:	
	plant infestation of	DIOCIVEISITY		Low-mediom	Implementation of weed	
	the area due to soil				control	
	disturbance					
	Dust nuisance from	Dust will be contained		Medium	Control: Dust suppression	Low
	stockpiled material	within the property			· · · ·	
	and vehicles	boundaries and will				
	transporting the	therefore affect only				
	material	the landowner.				
	Degradation of	All road users will be		Medium	Control and remedy: Road	Low-medium
	access roads	affected.			management	
	Noise nuisance	The noise impact		Medium	Control: Noise	Low
	caused by	should be contained			management	
	vehicles	within the boundaries			monitoring and	
		of the property, but			management	
		might have a periodic				
		impact on the closest				
	Contamination of	Contamination may		Medium	Control: Implementation of	Low
	area with	cause surface or ground			waste management	
	hydrocarbons or	water contamination if				
Sloping and landscaping	Soil erosion	Biodiversity	Decommissionin	Low-medium	Control: Soil management	
during rehabilitation	Health and safety	Impact will affect the	a phase	Medium-bigh	Control: Health and safety	
	risk posed by up-	employees and	gphase	Mediom-nigh	monitoring and	
	sloped areas	residents of the property			management	
	Dust nuisance	Dust will be contained		Low-medium	Control: Dust suppression	Low
	caused during	within the property				
	sloping and	boundaries and will				

NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE	MITIGATION TYPE	SIGNIFICANCE
	landscaping	therefore affect only				
		the landowner				
	Noise nuisance	The noise impact		Low-medium	Control: Noise monitoring	Low
	caused by	should be contained				
	machinery	within the boundaries				
		of the property but				
		might have a periodic				
		impact on the closest				
		residents.				
	Contamination of	Contamination may		Low-medium	Control: Waste	Low
	area with	cause surface/ground			management	
	hydrocarbons or	water contamination if				
	hazardous waste	not addressed				
Replacing of topsoil and	Loss of reinstated	Biodiversity and soil	Decommissioning	Low-medium	Control: Soil management	Low
rehabilitation of disturbed area	topsoil due to the	management	phase			
	absence of					
	vegetation					
	Infestation of the	Biodiversity and soil		Low-medium	Control and remedy:	Low
	area by weed and	management			Implementation of weed	
	invader plants				control	

The supporting impact assessment conducted by the EAP must be attached as an appendix.

# 3.13 Summary of specialist reports

This summary must be completed if any specialist reports informed the impact assessment and final site layout process and must be in the following tabular form.

List of studies undertaken	Recommendations of specialist reports	Specialist recommendations included in the EIA report Mark with an X where applicable	Reference to applicable report section Where specialist recommendations have been included
Hydrogeological	Monitoring	x	The possible
Study	Conduct water monitoring and implement remedial actions as required and effective		mitigation measures
	rehabilitation to as close to pre-mining conditions as practically possible.		that could be
			applied and the level
	<ul> <li>It is recommended that the monitoring network be extended to all the boundaries; north, south, east, and west of the proposed mining permit. The construction must be overseen by a qualified Hydrogeologist to monitor pollution in the upper weathered aquifer as well as the lower fractured aquifer.</li> <li>A monitoring network should be dynamic. This means that the network should be extended over time to accommodate the migration of contaminants through the aquifer as well as the expansion of infrastructure and/or addition of possible pollution sources. An audit on the monitoring network should be conducted annually.</li> <li>Modeling</li> <li>The numerical model should be recalibrated as soon as more hydrogeological data such as monitoring holes are made available. This would enhance model predictions and certainty</li> </ul>		of risk
	Water Contamination		

List of studies undertaken	Recommendations of specialist reports	Specialist recommendations included in the EIA report Mark with an X where applicable	Reference to applicable report section Where specialist recommendations have been included
	Prevention of pollution of surface water resources and impacts on other surface water		
	users by training of workers to prevent pollution, equipment and vehicle maintenance,		
	fast and effective clean-up of spills, effective waste management, manage clean and		
	dirty water in accordance.		
	Flow of Water		
	• The disturbance of streams and surface drainage patterns and reduction in flow to		
	downstream must be mitigated through careful design of ephemeral stream diversion		
	that minimizes impacts on the downstream environment, limit activities and		
	infrastructure within wetland and watercourses and their flood lines and implementation		
	of storm water management plan to divert clean water.		
	• Clean water trenches should be constructed surrounding the mining permit to prevent		
	clean water from entering the mining area, regarded as a dirty water catchment.		
	• Dirty water trenches must be constructed as well to direct water from the mine to the		
	pollution control dam, thereby preventing any contaminant water from leaving the		
	mine area.		
Hydrological	Monitoring of the surface water quality shall be carried out regularly during the	X	The possible
study	project's construction and operating phases.		mitigation measures
	• The project's development process will be undertaken during the dry months to		applied and the level
	mitigate pollutant runoff.		of risk
	• An independent ECO is to be appointed during construction. The mine's internal		
	Environmental officers will be conversant with best practices in accordance with		
	rehabilitation during decommissioning and an audit is to be performed before and		
	after rehabilitation.		

List of studies undertaken	Recommendations of specialist reports	Specialist recommendations included in the EIA report Mark with an X where applicable	Reference to applicable report section Where specialist recommendations have been included
	<ul> <li>Where mining infrastructure is required across natural watercourses, new storm water infrastructure such as pipes and culverts could replace the hydraulic function currently. being offered by natural watercourses. Its system should be built for both the hydraulic and environmental efficiency. A thorough assessment of the appropriateness of the new storm water infrastructure must be carried out at the preliminary design stage.</li> <li>Prevention of pollution of surface water resources and impacts on other surface water users by training of workers to prevent pollution, equipment and vehicle maintenance, fast and effective clean-up of spills, effective waste management, manage clean and dirty water in accordance.</li> </ul>		
Soil study	<ul> <li>The proposed mining land should be returned to its origin as before mining activities and the rehabilitation performance assessment in the proposed land must be done concurrently during the operational phase by a soil specialist.</li> <li>Final surface rehabilitation of all disturbed areas during mine activities and Rehabilitation of unnecessary water management facilities once appropriate to do so.</li> <li>A post-mining soil depth and land capability evaluation should be done by a soil specialist registered at the Council for Natural Scientific Professions (SACNASP). A post-mining land capability map should be compiled and submitted for closure purposes.</li> <li>Limit impacts to the footprints to keep physical impacts as small as possible. Areas for road, site lay-out should be minimized, dust generation.</li> <li>No striping or redistribution of top or subsoil if too wet should occur. A stick test must be used to determine if soil is too wet to redistribute. A sharpened broom sized stick must be pushed into and removed from the soil surface.</li> </ul>	X	The possible mitigation measures that could be applied and the level of risk

List of studies Recommen undertaken	ndations of specialist reports	Specialist recommendations included in the EIA report Mark with an X	Reference to applicable report section Where specialist recommendations have been included
		where applicable	been meloded
• Soi	il monitoring should be implemented during the life of the mine.		
Rehabilitation		x	The possible
Plan • It is	s recommended that the financial provision for closure and rehabilitation be		mitigation measures
an	nnually updated as per the requirements of the MPRDA.		that could be
			applied and the level
• Sur	rface water monitoring of the pans and associated wetlands surrounding the project		of risk
are	ea is to be undertaken to determine the impacts associated with operations of the		
pro	oposed mine.		
• Re	egular audits should be undertaken by a soil scientist during the soil stripping process.		
Thi	is will guarantee that soil is stripped and stockpiled correctly.		
• Re	egular audits should be undertaken to monitor the progress of areas that have been		
reł	habilitated.		
• Lo	ng term management of the rehabilitated areas will be required via contractual		
ac	greements with landowners in the area and rehabilitation should also be undertaken		
to	best practice.		

List of studies	Recommendations of specialist reports	Specialist	Reference to applicable
undertaken		recommendations	report section
		included in the EIA	Where specialist
		report	recommendations have
		Mark with an X	been included
		where applicable	
	An independent Environmental Assessment Practitioner (Singo Consulting Pty		
	Ltd) shall be appointed to ensure compliance with requirements of the Final		
	Rehabilitation, decommissioning and Closure Plan.		

Attach copies of specialist reports as appendices.

# 3.14 Environmental impact statement

# 3.14.1 Summary of the key findings of the EIA

The key findings of the EIA are as follows:

- The project entails the establishment of a granite pit on virgin area, with minimal vegetation cover. Therefore, very little natural vegetation has to be disturbed by mining activities.
- The existing roads to the proposed granite mine pit will be used to gain access to the site. No new roads are needed.
- Due to the remote setting of the granite pit, the majority of potential impacts can be contained within the boundaries, provided that mitigation measures proposed in this document is implemented on-site.
- The mining operation will have a temporary visual impact on the surrounding environment. Upon closure of the proposed mining area the visual impact on the proposed mining area will be mitigated and addressed.
- The proposed project is not expected to have an impact on the river passing the site to the south-east as mining activities will be contained within the boundaries of the permitted site. Proper storm water and waste management, however, must be implemented on the site in order to minimise the potential of pollution.

# 3.14.2 Final site map

Provide a map at an appropriate scale which superimposes the proposed overall activity and its associated structure and infrastructure on the environmental sensitivities of the preferred site indicating areas that must be avoided, including buffers. Attach as an Appendix.

The map indicating site activities is attached as Appendix A.

#### 3.14.3 Positive and negative impacts of the proposed activity and alternatives

The positive impacts associated with the project include:

- Job creation, although a fixed number of jobs to be created cannot be stated at this stage, will include multiple job opportunities for skilled, semi-skilled and unskilled personnel will be created by this project. This will contribute to the socio-economic status of the area.
- The granite to be mined will be supplied to client, hence it will enhance contractor's granite resources security to finish dam construction without shortage of granite.

The negative impacts associated with the project and that was considered to be of Low-Medium

or Medium significance includes:

Visual intrusion associated with the establishment of the mining area	Medium
Visual intrusion associated with the excavation activities	Medium
Visual intrusion associated with the stockpiled material and vehicles transporting	Low-medium
the material	
Dust nuisance caused by blasting activities	Low-medium
Dust nuisance due to the crushing activities	Low-medium
Noise nuisance generated by excavation equipment	Low-medium
Noise nuisance generated by the crushing activities	Low-medium
Degradation of access roads	Low-medium

# 3.15 Proposed impact management objectives and the impact management outcomes for inclusion in the EMPr

Based on the assessment and, where applicable, recommendations from specialist reports, recording of proposed impact management objectives, and impact management outcomes for development for inclusion in the EMPr and as authorisation condition.

Management objectives	Role	Management outcomes
Dust handling	Site Manager to ensure compliance with EMP guidelines. Compliance to be monitored by the Environmental Control Officer.	<ul> <li>Control dust liberation into the surrounding environment by using water spraying and/or other dust allaying agents.</li> <li>Limit speed on the access roads to 40km/h to prevent the generation of excess dust.</li> <li>Spray roads with water or an environmentally friendly dust-allaying agent that contains no PCB's (e.g. DAS products) if dust is generated above acceptable limits.</li> <li>Assess effectiveness of dust suppression equipment.</li> <li>Ensure the crusher plant has operational water sprayer to alleviate dust generation from the conveyor belts.</li> </ul>
Noise handling	Site Manager to ensure compliance with EMP guidelines. Compliance to be monitored by the Environmental Control Officer.	<ul> <li>Ensure that employees and staff conduct themselves in an acceptable manner while on site.</li> <li>No loud music may be permitted at the mining area.</li> <li>Ensure that all mining vehicles are equipped with silencers and maintained in a road worthy condition in terms of the Road Transport Act.</li> <li>Plan the type, duration and timing of the blasting procedures with due cognizance of other land users and structures in the vicinity.</li> <li>Notify surrounding land owners in writing prior to blasting.</li> </ul>
Management of weed/ invader plants	Site Manager to ensure compliance with EMP guidelines. Compliance to be monitored by the Environmental Control Officer.	<ul> <li>Implement a weed and invader plant control management plan.</li> <li>Control declared invader or exotic species on the rehabilitated areas.</li> <li>Keep the temporary topsoil stockpiles free of weeds.</li> </ul>
Surface and storm water handling	Site Manager to ensure compliance with EMP guidelines. Compliance to be monitored by the Environmental Control Officer.	<ul> <li>Divert storm water around topsoil heaps, stockpile areas and access roads to prevent erosion and material loss.</li> <li>Divert runoff water around stockpile areas with trenches and contour structures to prevent erosion of work areas.</li> <li>Conduct mining in accordance with the Best Practice Guideline for small scale mining that relates to storm water</li> </ul>

Management objectives	Role	Management outcomes
		management, erosion and sediment control and waste management, developed by the Department of Water and Sanitation (DWS), and any other conditions which that Department may impose.
Management of health and safety risks	Site Manager to ensure compliance with EMP guidelines. Compliance to be monitored by the Environmental Control Officer. Blasting contractor to comply with national blasting requirements.	<ul> <li>Plan the type, duration and timing of the blasting procedures with due cognizance of other land users and structures in the vicinity.</li> <li>Inform the surrounding landowners and communities of any blasting event.</li> <li>Use noise mufflers and/or soft explosives during blasting, limit fly rock.</li> <li>Give audible warning of a pending blast at least 3 minutes in advance of the blast.</li> <li>Remove all fly rock (of diameter 150 mm and larger) which falls beyond the working area, with the rock spill.</li> <li>Ensure that workers have access to the correct PPE as required by law.</li> <li>Ensure all operations comply with the Occupational Health and Safety Act.</li> </ul>
Waste management	Site Manager to ensure compliance with EMP guidelines. Compliance to be monitored by the Environmental Control Officer.	<ul> <li>Ensure no waste pile is established within 100 m of the edge of any river channel or other water bodies.</li> <li>Ensure regular vehicle maintenance take place within the service bay area of the off-site. If emergency repairs are needed on site, ensure drip trays is present. Ensure all waste products are disposed of in a 200 l closed container/bin inside the emergency service area.</li> <li>Collect effluents containing oil, grease or other industrial substances in a suitable receptacle and remove from site, for resale or appropriate disposal at a recognised facility.</li> <li>Clean spills immediately to the satisfaction of the Regional Manager by removing the spillage and polluted soil and disposing thereof at a recognised facility. File proof.</li> <li>Ensure availability of suitable covered, conveniently placed receptacles at all times for waste disposal.</li> <li>Store non-biodegradable refuse such as glass bottles, plastic bags, metal scrap, etc., in a container with a closable lid at a collecting point. Collection should take place on a regular basis and disposed of at the recognised landfill site. Prevent refuse from being dumped on or in the vicinity of the mine area.</li> </ul>
Management of access roads	Site Manager to ensure compliance with EMP guidelines. Compliance to be monitored by the Environmental Control Officer.	<ul> <li>Divert storm water around access roads to prevent erosion.</li> <li>Erosion of access road: Restrict vehicular movement to existing access routes to prevent crisscrossing of tracks through undisturbed areas.</li> </ul>
Topsoil handling	Site Manager to ensure compliance with EMP guidelines. Compliance	<ul> <li>Remove the first 300mm of topsoil in strips and store at stockpile area.</li> <li>Keep the temporary topsoil stockpiles free of weeds.</li> </ul>

Management objectives	Role	Management outcomes
	to be monitored by the Environmental Control Officer.	<ul> <li>Place topsoil stockpiles on a levelled area and implement measures to safeguard the piles from being washed away in the event of heavy rains/storm water.</li> <li>Topsoil heaps should not exceed 1.5 m in order to preserve micro-organisms within the topsoil, which can be lost due to compaction and lack of oxygen.</li> <li>Seed the stockpiled topsoil heaps if vegetation does not reestablish within 6 months of stockpiling.</li> <li>Divert storm- and runoff water around the stockpile area and access roads to prevent erosion.</li> </ul>
Fauna and flora	Site Manager to ensure compliance with EMP guidelines. Compliance to be monitored by the Environmental Control Officer.	<ul> <li>Ensure no fauna is caught, killed, harmed, sold or played with.</li> <li>Instruct workers to report any animals that may be trapped in the working area. Ensure no snares are set or nests raided for eggs or young.</li> <li>Do not remove plants/trees without ECO approval.</li> </ul>

# 3.16 Aspects for inclusion as conditions of authorisation

Any aspects which must be made conditions of the Environmental Authorisation.

The management objectives listed in this report (4.4) should be considered for inclusion in the environmental authorisation.

# 3.17 Description of any assumptions, uncertainties and gaps in knowledge

Which relate to the assessment and mitigation measures proposed.

The assumptions made in this document, which relate to the assessment and mitigation measures proposed, stem from site-specific information gathered from the property owner, as well as site inspections and background information gathering.

# 3.18 Reasoned opinion as to whether the proposed activity should be authorised

No fatal flaws could be identified that were deemed severe enough to prevent the activity from continuing, should the mitigation measures and monitoring programmes proposed in this document be implemented on site. The management objectives listed in this report should be considered for inclusion in the Environmental Authorisation.

#### 3.19 Period for which the Environmental Authorisation is required

The applicant requests the Environmental Authorisation to be valid for a three-year period.

# 3.20 Undertaking

Confirm that the undertaking required to meet the requirements of this section is provided at the end of the EMPr and is applicable to the Basic Assessment Report and the Environmental Management Programme report.

The undertaking required to meet the requirements of this section is provided at the end of the EMPr and is applicable to the Basic Assessment Report and the Environmental Management Programme report.

# 3.21 Financial provision

State the amount required to manage and rehabilitate the environment.

A financial provision of R 668422 is proposed for the mining application.

# 3.21.1 Explain how the aforesaid amount was derived.

The amount was derived from the quantum calculations.

# 3.21.2 Confirm that this amount can be provided from operating expenditure.

Confirm that the amount is anticipated to be an operating cost and is provided for as such in the Mining Work Programme, Financial and Technical Competence Report or PWP.

Applicant: Evaluator:	Minzomanzi (Pty) Ltd Livhuwani Sigwadi				Ref No.: Date:	KZN 30/5	5/1/3/2/10695 MP Sep-20
			A	В	С	D	E=A*B*C*D
No.	Description	Unit	Quantity	Master	Multiplication	Weighting	Amount
				Rate	factor	factor 1	(Rands)
		\		· · ·			
1	Dismantling of processing plant and related structures (including overland conveyors and powerlines)	m 3	o	16	1	1	0
2 (A)	Demolition of steel buildings and structures	m2	0	228	1	1	0
2(B)	Demolition of reinforced concrete buildings and struct	m2	0	336	1	1	0
3	Rehabilitation of access roads	m2	300	41	0,01	1	123
4 (A)	Demolition and rehabilitation of electrified railw ay lines	m	0	395	1	1	0
4 (A)	Demolition and rehabilitation of non-electrified railw ay lines	m	0	216	1	1	0
5	Demolition of housing and/or administration facilities	m2	0	455	1	1	0
6	Opencast rehabilitation including final voids and ramps	ha	4,96	238697	0,05	1	59196,856
7	Sealing of shafts adits and inclines	m3	0	122	1	1	0
8 (A)	Rehabilitation of overburden and spoils	ha	0	159131	1	1	0
8 (B)	Rehabilitation of processing waste deposits and evaporation ponds (non-polluting potential)	ha	0	198195	1	1	0
8(C)	Rehabilitation of processing waste deposits and evaporation ponds (polluting potential)	ha	0,05	5575653	1	1	278782,65
9	Rehabilitation of subsided areas	ha	0	133249	1	1	0
10	General surface rehabilitation	ha	4,96	126059	0,05	1	31262,632
11	River diversions	ha	0	126059	1	1	0
12	Fencing	m	0	144	1	1	0
13	Water management	ha	0,03	47931	0,1	1	143,793
14	2 to 3 years of maintenance and aftercare	ha	4,96	16776	0,05	1	4160,448
15 (A)	Specialist study	Sum	0	0	1	1	0
15 (B)	Specialist study	Sum	0	0	1	1	0
					Sub Tot	al 1	373669,379
1	Preliminary and General 44840,32548			weighting 1	factor 2	44840,32548	
2	Contingencies			373	66,9379		37366,9379
					Subtota	al 2	455876,64
SIGN	Kenneth Singo						
DATE	2020/09/08				VAT (15	5%)	212545,57
					Grand T	otal	669400
					Grand I	oldi	008422

The amount of **R668422** for financial provision was calculated for the mining application. Financial provision will be made in the form of a bank guarantee upon the successful granting of the mining permit.

# 3.22 Specific information required by the Competent Authority

Compliance with the provisions of sections 24(4) (a) and (b) read with section 24 (3)(a) and (7) of the NEMA (107 of 1998). The EIA report must include the:

# 3.22.1 Impact on the socio-economic conditions of any directly affected person

Provide the results of investigation, assessment, and evaluation of the impact of the mining, bulk sampling or alluvial diamond prospecting on any directly affected person including the landowner, lawful occupier, or, where applicable, potential beneficiaries of any land restitution claim, attach the investigation report as an Appendix.

The proposed pit will be established on virgin ground with no activity and vegetation cover seen during site assessment. The pit will, therefore, not have to compete with other land uses. Upon closure, the land will be rehabilitated to a state fit for agricultural purposes.

Due to the remote location of the pit, there will be little to no negative impacts on the community. The dust and noise impacts that may emanate from the mining area during the operational phase could have a negative impact on the surrounding community if the mitigation measures proposed in this document are not implemented and managed on-site. However, due to the distance of the community from the mining area ( $\pm 600$  m) these impacts are considered to be of low-medium significance.

The operation of the mine will have a number of positive impacts, such as job creation for skilled, semi-skilled and unskilled permanent workers. The proposed mine pit will therefore contribute locally by aiding in the development of the area and boosting the local economy through increased municipal revenue. On a national scale, this will aid by boosting the slowly growing SA economy.

# 3.22.2 Impact on any national estate referred to in section 3(2) of the National Heritage Resources Act

Provide the results of investigation, assessment and evaluation of the impact of the mining, bulk sampling or alluvial diamond prospecting on any national estate referred to in section 3(2) of the National Heritage Resources Act, 1999 (Act No 25 of 1999) with the exception of the national estate contemplated in section 3(2) (i) (vi) and (vii) of the Act.

Due to the nature of the project area, adjacent areas, the fact that no residence or, by the occurrence of a large-scale mining, no area of archaeological or cultural importance could be identified.
### 3.23 Other matters required in terms of section 24(4)(a) and (b) of the Act

The EAP managing the application must provide the competent authority with detailed, written proof of an investigation as required by section 24(4)(b)(i) of the Act and motivation if no reasonable or feasible alternatives, as contemplated in sub-regulation 22(2)(h), exist. The EAP must attach such motivation as an Appendix.

The site and project alternatives investigated during the impact assessment process were done at the hand of information obtained during the site investigation, public participation process and desktop studies conducted of the study area. As discussed earlier, the following alternatives were considered:

- Establishment of a pit more than 1 km away from the residence or any form of development vs. establishment of a granite pit in an un-utilised, partially virgin area (preferred alternative)
- Pit mining (preferred alternative) vs. underground mining
- Temporary Infrastructure (preferred alternative) vs. permanent Infrastructure
- Access onto provincial road (preferred alternative) vs. access onto national road
- No-go alternative

## PART B

## ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT

#### 4 Environmental management programme

#### 4.1 Details of the EAP

Confirm that the requirements for the provision of the details and expertise of the EAP are already included in Part A, section 1 (a) herein as required).

#### Details of the EAP are included in Part A of this report.

#### 4.2 Description of the aspects of the activity

Confirm that the requirements to describe the aspects of the activity that are covered by the draft environmental management programme is already included in Part A, 2.2, herein, as required.

# The aspects of the activity that are covered by the environmental management programme has been described and included in Part A, 2.2.

#### 4.3 Composite map

Provide a map (attached as an Appendix) at an appropriate scale which superimposes the proposed activity, its associated structures and infrastructure on the environmental sensitivities of the preferred site, indicating any areas that any areas that should be avoided, such as buffers.

As mentioned in Part A, 2.1 this map has been compiled and is attached as Appendix A

# 4.4 Description of impact management objectives, including management statements

#### 4.4.1 Determination of closure objectives

Ensure that the closure objectives are informed by the type of environment described.

The decommissioning phase will entail the rehabilitation of the mining site. Once mining activities cease, the area will be fully rehabilitated. The perimeter walls of the pit will either be sloped at 1:3 to the pit floor to prevent soil erosion. The applicant will comply with the minimum closure objectives as prescribed by DMR and detailed below. A detailed rehabilitation and closure plan is attached on the appendix

Rehabilitation of the excavated area:

- Rocks and coarse material removed from the excavation must be dumped into the excavation.
- No waste will be permitted to be deposited in the excavations.
- Once overburden, rocks and coarse natural materials have been added to the excavation and profiled with acceptable contours and erosion control measures, the

topsoil previously stored will be returned to its original depth over the area.

- The area will be fertilised if necessary, to allow vegetation to establish rapidly. The site will be seeded with a local or adapted indigenous seed mix in order to propagate the locally or regionally occurring flora, should natural vegetation not re-establish within 6 months from site closure.
- If a reasonable assessment indicates that the re-establishment of vegetation is unacceptably slow, the Regional Manager may require that the soil be analysed and any deleterious effects on the soil arising from the mining operation be corrected and the area seeded with a vegetation seed mix to their specification.

Rehabilitation of plant area:

- The compacted areas will be ripped and the topsoil returned over the area.
- Coarse natural material used for the construction of ramps will be removed and dumped into the excavations.
- Stockpiles will be removed during the decommissioning phase, the area ripped and the topsoil returned to its original depth to provide a growth medium.
- On completion of operations, all structures or objects will be dealt with in accordance with Section 44 of the MPRDA, 2002 (Act 28 of 2002):
  - Where sites have been rendered devoid of vegetation/grass or soils have been compacted by traffic, the surface will be scarified or ripped.
  - The site shall be seeded with a vegetation seed mix adapted to reflect the local indigenous flora if natural vegetation does not re-establish within 6 months of the closure of the site.
- Photographs of the mining area and office sites, before and during the mining operation and after rehabilitation, will be taken at selected fixed points and kept on record for the information of the Regional Manager.
- On completion of mining operations, the surface of these areas, if compacted due to hauling and dumping operations, will be scarified to a depth of at least 300 mm and graded to an even surface condition and the previously stored topsoil will be returned to its original depth over the area.
- Prior to replacing the topsoil, the overburden material that was removed from these areas will be replaced in the same order as it originally occurred.
- The area will then be fertilised if necessary, to allow vegetation to establish rapidly. The site will be seeded with a local, adapted indigenous seed mix if natural vegetation does not re-establish within 6 months after closure of the site.

 If a reasonable assessment indicates that the re-establishment of vegetation is unacceptably slow, the Regional Manager may require that the soil be analysed and any deleterious effects on the soil arising from the mining operation be corrected and the area seeded with a seed mix to their specification.

Final rehabilitation:

- Rehabilitation of the surface area will entail landscaping, levelling, top dressing, land preparation, seeding (if required), maintenance and weed/alien clearing.
- All infrastructure, equipment, plant, temporary housing and other items used during the mining period will be removed from the site (section 44 of the MPRDA).
- Waste material of any description, including receptacles, scrap, rubble and tyres, will be removed entirely from the mining area and disposed of at a recognised landfill facility. It will not be permitted to be buried or burned on the site.
- Weed/alien clearing will be done sporadically during the life of the mining activities.
- Species regarded as Category 1 weeds according to CARA (Conservation of Agricultural Recourses Act, 1983 – Act 43; Regulations 15 & 16 (as amended in March 2001) need to be eradicated from the site.
- Final rehabilitation will be completed within a period specified by the Regional Manager.

#### 4.5 Volume and rate of water use required for the operation

Water will only be used for dust suppression purposes as the mining method does not require any washing or related process water. Water sprayers will be fixed to the crusher plant and a water truck will be used to spray access roads and stockpile areas to alleviate dust generation. It is proposed that the mining activities will require approximately 10 000L of water per day.

#### 4.6 Has a water use licence has been applied for?

Water licence has not been applied yet, it is proposed that water will be bought elsewhere and brought to the site by tankers. however, there is a risk that the proposed project will trigger section 21(g) of National Water Act, 1998 (Act no 38 of 1998) hence will require general authorisation of water use in terms of Section 39 of National Water Act, 1998 (Act no 38 of 1998) if this EMP is not adhered to. If any change occurred during mining plan relating to water use, that need more water from the river therefore water use licence must be applied as a requirement.

### 4.7 Impacts to be mitigated in their respective phases

Measures to rehabilitate the environment affected by the undertaking of any listed activity.

Activities	Phase	Size and scale	Mitigation measures	Compliance with	Time period for
E.g. for prospecting – drill site, site camp, ablution, facilities, accommodation, equipment storage, sample storage, site office, access route, etc. E.g. for mining – excavations, blasting, stockpiles, discard dumps/dams, loading, hauling and transport. Water supply dams and boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc.	Of operation in which activity will take place. State: Planning and design, pre-construction, construction operational, rehabilitation, closure, post-closure	Volumes, tonnages and hectares or m <sup>2</sup>	Describe how recommendations herein will remedy the cause of pollution or degradation	Description of how each recommendation herein will comply with any prescribed environmental management standards or practices that have been identified by Competent Authorities	Describe the time period when the measures in the environmental management programme must be implemented. Measures must be implemented when required. With regard to rehabilitation specifically this must take place at the earliest opportunity. With regard to rehabilitation, therefore state either: Upon cessation of the individual activity or, upon cessation of mining, bulk sampling or alluvial diamond prospecting as the case may be.
Preparing the surface before blasting(site establishment)	Site establishment/ construction phase	5 ha	<ul> <li>Visual mitigation</li> <li>The site must be neat and kept in good condition at all times.</li> <li>Upon closure, the site must be rehabilitated and sloped to ensure that visual impact on the aesthetic value of the area is minimal.</li> <li>Dust handling</li> <li>Dust liberation into the surrounding environment must be effectively controlled by the use of, inter alia, water spraying and/or other dustallaying agents.</li> </ul>	<ul> <li>Dust and Noise: NEMAQA, 2004</li> <li>Regulation 6(1)</li> <li>Weeds: CARA, 1983</li> <li>Storm Water: NWA, 1998</li> <li>Waste: NEM:WA, 2008</li> </ul>	Throughout the site establishment phase.

Activities	Phase	Size and scale	Mitigation measures	Compliance with	Time period for
		of disturbance		standards	implementation
			The site manager must ensure		
			continuous assessment of all dust		
			suppression equipment to confirm its		
			effectiveness.		
			• Speed on the access roads must be		
			limited to 40km/h to prevent excess		
			dust generation.		
			<ul> <li>Roads must be sprayed with water or</li> </ul>		
			an environmentally-friendly dust-		
			allaying agent that contains no PCBs		
			(e.g. DAS products) if dust is generated		
			above acceptable limits.		
			Noise handling		
			• The applicant must ensure that staff		
			conduct themselves in an acceptable		
			manner while on site, both during work		
			hours and after hours.		
			No loud music permitted at the mining		
			area.		
			All mining vehicles must be equipped		
			with silencers and kept roadworthy in		
			terms of the Road Transport Act.		
			Weed and invader plant management		
			A weed and invader plant control		
			management plan must be		
			implemented at the site to ensure		
			eradication of all listed invader plants		
			in terms of CORA (Act No 43 1983).		
			Management must take responsibility to		
			control declared invader or exotic		
			species on the rehabilitated areas. The		
			tollowing control methods can be used:		

Activities	Phase	Size and scale	Mitigation measures	Compliance with	Time period for
		of disturbance		standards	implementation
			<ul> <li>The plants can be uprooted,</li> </ul>		
			felled or cut off and can be		
			destroyed completely.		
			<ul> <li>The plants can be treated with an</li> </ul>		
			herbicide that is registered for use		
			in connection therewith and in		
			accordance with the directions		
			for the use of such an herbicide.		
			<ul> <li>The temporary topsoil stockpiles</li> </ul>		
			must be kept free of weeds.		
			Storm water handling		
			Storm water must be diverted around		
			the topsoil heaps, stockpile areas and		
			access roads to prevent erosion and		
			material loss.		
			Runoff water must be diverted around		
			the stockpile areas with trenches and		
			contour structures to prevent erosion of		
			the work areas.		
			Waste management		
			<ul> <li>No processing area or waste pile may</li> </ul>		
			be established within 100 m of the		
			edge of any river channel or other		
			water bodies.		
			Regular vehicle maintenance may only		
			take place in the service bay area of		
			the off-site. If emergency repairs are		
			needed on equipment not able to		
			move off site, drip trays must be present.		
			All waste products must be disposed of		
			in a 200 I closed container/bin to be		
			removed from the emergency service		

Activities	Phase	Size and scale	Mitigation measures	Compliance with	Time period for
		of disturbance		standards	implementation
			area to ensure proper disposal.		
			<ul> <li>Any effluents containing oil, grease or</li> </ul>		
			other industrial substances must be		
			collected in a suitable receptacle and		
			removed from the site, for resale or		
			appropriate disposal at a recognised		
			facility.		
			Spills must be cleaned immediately to		
			the satisfaction of the Regional		
			Manager by removing the spillage and		
			the polluted soil and disposing it at a		
			recognised facility. Proof must be filed.		
			Suitable covered receptacles must be		
			available at all times and conveniently		
			placed for waste disposal.		
			Non-biodegradable refuse, such as		
			glass bottles, plastic bags, metal scrap,		
			etc., must be stored in a container with		
			a closable lid at a collecting point and		
			collected on a regular basis and		
			disposed of at a recognised landfill site.		
			Specific precautions must be taken to		
			prevent refuse from being dumped on		
			or in the vicinity of the mine area.		
			Biodegradable refuse generated must		
			be handled as indicated above.		
Blasting	Operational phase	3.9ha	Management of Health and Safety Risks	Health and safety	Applicable with each
			<ul> <li>The type, duration and timing of the</li> </ul>	• MHSA, 1996	blasting event.
			blasting procedures must be planned	• OHSA, 1993	
			with due cognizance of other land	• OHSAS 18001	
			users and structures in the vicinity,	Dust and noise	
			<ul> <li>The surrounding landowners and</li> </ul>	NEMAQA, 2004	

Activities	Phase	Size and scale	Mitigation measures	Compliance with	Time period for
		of disturbance		standards	implementation
			communities must be informed in	Regulation 6(1)	
			writing ahead of any blasting event		
			• Measures to limit fly rock must be taken		
			<ul> <li>Audible warning of a pending blast</li> </ul>		
			must be given at least 3 minutes before		
			the blast		
			All fly rock (of diameter 150mm and		
			larger) which falls beyond the working		
			area, together with the rock spill must		
			be collected and removed,		
			<ul> <li>Workers must have access to the</li> </ul>		
			correct PPE as required by law.		
			<ul> <li>All operations must comply with the</li> </ul>		
			OHSA.		
			Dust handling		
			<ul> <li>Dust liberation into the surrounding</li> </ul>		
			environment must be effectively		
			controlled by the use of, inter alia, water		
			spraying and/or other dust-allaying		
			agents.		
			<ul> <li>Speed on the access roads must be</li> </ul>		
			limited to 40km/h to prevent the		
			generation of excess dust.		
			Noise handling		
			• The applicant must ensure that statt		
			conduct themselves in an acceptable		
			manner while on site, both during work		
			hours and after hours.		
			<ul> <li>No Ioua music permitted at the mining</li> </ul>		
			area.		
			All mining vehicles must be equipped		
			with silencers and maintained in a road		

Activities	Phase	Size and scale	Mitigation measures	Compliance with	Time period for
		of disturbance		standards	implementation
			worthy condition in terms of the Road		
			Transport Act.		
			• The type, duration and timing of the		
			blasting procedures must be planned		
			with due cognizance of other land		
			users and structures in the vicinity.		
			Surrounding land owners must be		
			notified in writing prior to blasting.		
Excavation	Operational phase	3.9ha	Visual mitigation	Dust and noise	Throughout the
			<ul> <li>The site needs to have a neat</li> </ul>	NEM:AQA, 2004	operational phase
			appearance and be kept in good	Regulation 6(1)	
			condition at all times.	Health and safety	
			<ul> <li>Upon closure the site needs to be</li> </ul>	MHSA, 1996	
			rehabilitated and sloped to ensure that	OHSA, 1773	
			the visual impact on the aesthetic	Fauna and flora	
			value of the area is kept to a minimum.	NEM'BA 2004	
			Dust handling	Waste	
			<ul> <li>Dust liberation into the surrounding</li> </ul>	NEMWA, 2008	
			environment must be effectively	Weeds	
			controlled by the use of, inter alia,	CARA, 1983	
			water spraying and/or other dust-		
			allaying agents.		
			<ul> <li>The site manager must ensure</li> </ul>		
			continuous assessment of all dust		
			suppression equipment to confirm its		
			effectiveness.		
			<ul> <li>Speed on the access roads must be</li> </ul>		
			limited to 40km/h to prevent the		
			generation of excess dust.		
			Roads must be sprayed with water or		
			an environmentally friendly dust-		
			allaying agent that contains no PCBs		

Activities	Phase	Size and scale	Mitigation measures	Compliance with	Time period for
		of disturbance		standards	implementation
			(e.g. DAS products) if dust is generated		
			above acceptable limits.		
			Noise handling		
			<ul> <li>The applicant must ensure that staff</li> </ul>		
			conduct themselves in an acceptable		
			manner while on site, both during work		
			hours and after hours.		
			<ul> <li>No loud music permitted at the mining</li> </ul>		
			area.		
			All mining vehicles must be equipped		
			with silencers and maintained in a road		
			worthy condition in terms of the Road		
			Transport Act.		
			Management of health and safety risks		
			<ul> <li>Workers must have access to the</li> </ul>		
			correct PPE as required by law.		
			<ul> <li>All operations must comply with the</li> </ul>		
			OHSA.		
			Protection of fauna and flora		
			• The site manager should ensure that no		
			fauna is caught, killed, harmed, sold or		
			played with.		
			<ul> <li>Workers should be instructed to report</li> </ul>		
			any animals that may be trapped in		
			the working area.		
			<ul> <li>No snares may be set, or nests raided</li> </ul>		
			for eggs or young.		
			No plants or frees may be removed		
			without the approval of the ECO.		
			Waste management		
			No processing area or waste pile may		
			be established within 100 m of the		

Activities	Phase	Size and scale	Mitigation measures	Compliance with	Time period for
		of disturbance		standards	implementation
			edge of any river channel or other		
			water bodies.		
			Regular vehicle maintenance may only		
			take place within the service bay area		
			of the off-site. If emergency repairs are		
			needed on equipment not able to		
			move off site, drip trays must be		
			present. All waste products must be		
			disposed of in a 200 L closed		
			container/bin to be removed from the		
			emergency service area in order to		
			ensure proper disposal.		
			Any effluents containing oil, grease or		
			other industrial substances must be		
			collected in a suitable receptacle and		
			removed from site, for resale/		
			appropriate disposal at a recognised		
			facility.		
			• Spills must be cleaned up immediately		
			to the satisfaction of the Regional		
			Manager by removing the spillage and		
			polluted soil and disposing it at a		
			recognised facility. Proof must be filed.		
			Suitable covered receptacles must be		
			available at all times and conveniently		
			placed for waste disposal.		
			Non-biodegradable refuse such as		
			glass bottles, plastic bags, metal scrap,		
			etc., should be stored in a container		
			with a closable lid at a collecting point		
			and collected on a regular basis and		
			disposed of at a recognised landfill site.		

Activities	Phase	Size and scale	Mitigation measures	Compliance with	Time period for
		of disturbance		standards	implementation
			Specific precautions should be taken		
			to prevent refuse from being dumped		
			on or in the vicinity of the mine area.		
			Biodegradable refuse generated must		
			be handled as indicated above.		
			Management of weed/invader plants		
			A weed and invader plant control		
			management plan must be		
			implemented at the site to ensure		
			eradication of all listed invader plants		
			in terms of CARA (Act No 43 1983).		
			Management must take responsibility		
			to control declared invader or exotic		
			species on the rehabilitated areas. The		
			following control methods can be		
			used:		
			<ul> <li>The plants can be uprooted,</li> </ul>		
			felled or cut off and can be		
			destroyed completely.		
			<ul> <li>The plants can be treated with an</li> </ul>		
			herbicide that is registered for use		
			in connection therewith and in		
			accordance with the directions		
			for the use of such an herbicide.		
			• The temporary topsoil stockpiles		
			need to be kept free of weeds.		
Crushing	Operational phase	0.3ha	Dust handling	Dust and noise	Throughout the
			<ul> <li>Dust liberation into the surrounding</li> </ul>	NEMAQA 2004	operational phase
			environment must be effectively	Waste	
			controlled by using, inter alia, water	NEMWA 2008	
			spraying and/or other dust-allaying		
			agents.		

Activities	Phase	Size and scale	Mitigation measures	Compliance with	Time period for
		of disturbance		standards	implementation
			• The site manager must ensure		
			continuous assessment of all dust		
			suppression equipment to confirm its		
			effectiveness.		
			• Speed on the access roads must be		
			limited to 40km/h to prevent excess		
			dust generation.		
			<ul> <li>The crusher plant must have</li> </ul>		
			operational water sprayers to alleviate		
			dust generation from conveyor belts.	~	
			Noise handling		
			• The applicant must ensure that staff		
			conduct themselves in an acceptable		
			manner while on site, during work hours		
			and after hours.		
			<ul> <li>No loud music permitted at the mining</li> </ul>		
			area.		
			All mining vehicles must be equipped		
			with silencers and kept roadworthy in		
			terms of the Road Transport Act.		
			Waste management		
			<ul> <li>No processing area or waste pile may</li> </ul>		
			be established within 100 m of the		
			edge of any river channel or other		
			water bodies.		
			Regular vehicle maintenance may only		
			take place in the service bay of the off-		
			sile. Il emergency repairs are needed		
			on equipment not able to move off		
			sire, arip trays must be present. All		
		*	waste products must be disposed of in		
			a 2001 closed container/bin to be		

Activities	Phase	Size and scale	Mitigation measures	Compliance with	Time period for
		of disturbance		standards	implementation
			removed from the emergency service		
			area for proper disposal.		
			Any effluents containing oil, grease or		
			other industrial substances must be		
			collected in a suitable receptacle and		
			removed from site, either for resale or		
			appropriate disposal at a recognised		
			facility.		
			• Spills must be cleaned up immediately		
			to the satisfaction of the Regional		
			Manager by removing spillage and		
			polluted soil and by disposing it at a		
			recognised facility. Proof must be filed.		
			Suitable covered receptacles must be		
			available at all times and conveniently		
			placed for the disposal of waste.		
			Non-biodegradable refuse such as		
			glass bottles, plastic bags, metal scrap,		
			etc., should be stored in a container		
			with a closable lid at a collecting point		
			and collected on a regular basis and		
			disposed of at a recognised landfill site.		
			Specific precautions must be taken to		
			prevent refuse from being dumped on		
			or in the vicinity of the mine area.		
			Biodegradable refuse generated must		
			be handled as indicated above.		
Stockpiling and	Operational phase	0.7ha	Visual mitigation	Storm water	Throughout operational
transporting			• The site must be neat and be kept in	NWA, 1998	phase
			good condition at all times.	Weeds	
			• Upon closure, the site must be	CARA, 1983	
			rehabilitated and sloped to ensure that	Dust and noise	

Activities	Phase	Size and scale	Mitigation measures	Compliance with	Time period for
		of disturbance		standards	implementation
			the visual impact on the aesthetic	NEMAQA, 2004	
			value of the area is minimal.	Regulation 6(1)	
			Storm water handling	Waste	
			<ul> <li>Storm water must be diverted around</li> </ul>	NEMWA, 2008	
			the stockpile areas and access roads		
			to prevent erosion and material loss.		
			Runoff water must be diverted around		
			the stockpile areas with trenches and		
			contour structures to prevent erosion of		
			work areas.		
			<ul> <li>Mining must be conducted in</li> </ul>		
			accordance with the Best Practice		
			Guideline for small scale mining that		
			relates to storm water management,		
			erosion and sediment control and		
			waste management, developed by		
			the DWS, and any other conditions that		
			the DWS may impose:		
			• Clean water (e.g. rainwater) must be		
			kept clean and be routed to a natural		
			watercourse by a system separate from		
			the dirty water system. Prevent clean		
			water from running or spilling into dirty		
			water systems.		
			• Dirty water must be collected and		
			contained in a system separate from		
			the clean water system.		
			• Dirty water must be prevented from		
			spilling/seeping into clean water		
			systems.		
			• The storm water management plan		
			must apply for the entire life cycle of		

Activities	Phase	Size and scale	Mitigation measures	Compliance with	Time period for
		of disturbance		standards	implementation
			the mine and over different		
			hydrological cycles (rainfall patterns).		
			<ul> <li>The statutory requirements of various</li> </ul>		
			regulatory agencies and the interests		
			of stakeholders must be considered		
			and incorporated into the storm water		
			management plan.		
			Management of weed/invader plants		
			<ul> <li>A weed and invader plant control</li> </ul>		
			management plan must be		
			implemented at the site to ensure		
			eradication of all listed invader plants		
			in terms of CARA (Act No 43 1983).		
			Management must take responsibility to		
			control declared invader or exotic		
			species on the rehabilitated areas. The		
			following control methods can be used:		
			• The plants can be uprooted,		
			felled or cut off and can be		
			destroyed completely.		
			<ul> <li>The plants can be treated with an</li> </ul>		
			herbicide that is registered for use		
			in connection therewith and in		
			accordance with the directions		
			for the use of such an herbicide.		
			• The temporary stockpile area must be		
			kept free of weeds.		
			Dust handling		
			Dust liberation into the surrounding		
			environment must be effectively		
			controlled by the use of, inter alia,		
			water spraying and/or other dust-		

Activities	Phase	Size and scale	Mitigation measures	Compliance with	Time period for
		of disturbance		standards	implementation
			allaying agents.		
			<ul> <li>The site manager must ensure</li> </ul>		
			continuous assessment of all dust		
			suppression equipment to confirm its		
			effectiveness.		
			Speed on the access roads must be		
			limited to 40km/h to prevent excess		
			dust generation.		
			<ul> <li>Roads must be sprayed with water or</li> </ul>		
			an environmentally-friendly dust-		
			allaying agent that contains no PCBs		
			(e.g. DAS products) if dust is generated		
			above acceptable limits.		
			Management of access roads		
			Storm water should be diverted around		
			the access roads to prevent erosion.		
			Vehicular movement must be restricted		
			to existing access routes to prevent		
			crisscrossing of tracks through		
			undisturbed areas.		
			Rutting and erosion of the access road		
			caused as a result of the mining		
			activities must be repaired by the		
			applicant.		
			Noise handling		
			• The applicant must ensure that staff		
			conduct themselves in an acceptable		
			manner while on site, both during work		
			hours and after hours.		
			No loud music permitted at the mining		
			area.		
			• All mining vehicles must be equipped		

Activities	Phase	Size and scale	Mitigation measures	Compliance with	Time period for
		of disturbance		standards	implementation
			with silencers and kept roadworthy in		
			terms of the Road Transport Act.		
			Waste management		
			<ul> <li>No processing area or waste pile may</li> </ul>		
			be established within 100 m of the		
			edge of any river channel or other		
			water bodies.		
			Regular vehicle maintenance may only		
			take place in the service bay area of		
			the off-site. If emergency repairs are		
			needed on equipment not able to		
			move off site, drip trays must be		
			present. All waste products must be		
			disposed of in a 200 l closed		
			container/bin to be removed from the		
			emergency service area for proper		
			disposal.		
			Any effluents containing oil, grease or		
			other industrial substances must be		
			collected in a suitable receptacle and		
			removed from site, for resale or		
			appropriate disposal at a recognised		
			facility.		
			Spills must be cleaned up immediately		
			to the satisfaction of the Regional		
			Manager by removing the spillage and		
			polluted soil and disposing of it at a		
			recognised facility. Proof must be filed.		
			Suitable covered receptacles must be		
			available at all times and conveniently		
			placed for waste disposal.		
			Non-biodegradable refuse such as		

Activities	Phase	Size and scale	Mitigation measures	Compliance with	Time period for
		of disturbance		standards	implementation
			glass bottles, plastic bags, metal scrap,		
			etc., should be stored in a container		
			with a closable lid at a collecting point		
			and collected on a regular basis and		
			disposed of at a recognised landfill site.		
			Specific precautions should be taken		
			to prevent refuse from being dumped		
			on or in the vicinity of the mine area.		
			Biodegradable refuse generated must		
			be handled as indicated above.	· ·	
Sloping and	Decommissioning	5 ha	Storm water handling	Storm water	Upon cessation of
landscaping during	phase		Storm water must be diverted around	NWA, 1998	mining
renabilitation			the renabilitated area to prevent		
			erosion and loss of reinstated material.	OHSA 1993	
			- Executions have to be rehabilitated	OHSAS 18001	
			• Excavations have to be rendbillided	Dust and noise	
			as supplied in the closure plan to	NEMAQA 2004,	
			• Workers must have access to the	Regulation 6(1)	
			correct PPE as required by law	Waste	
			• All operations must comply with the	NEMWA 2008	
			OHSA.		
			Dust handling		
			Dust liberation into the surrounding		
			environment must be effectively		
			controlled by the use of, inter alia,		
			water spraying and/or other dust-		
			allaying agents.		
			• The site manager must ensure		
			continuous assessment of all dust		
			suppression equipment to confirm its		
			effectiveness.		

Activities	Phase	Size and scale	Mitigation measures	Compliance with	Time period for
		of disturbance		standards	implementation
			<ul> <li>Speed on the access roads must be</li> </ul>		
			limited to 40km/h to prevent excess		
			dust generation.		
			<ul> <li>Roads must be sprayed with water or</li> </ul>		
			an environmentally friendly dust-		
			allaying agent that contains no PCBs		
			(e.g. DAS products) if dust is generated		
			above acceptable limits.		
			Noise handling		
			• The applicant must ensure that staff		
			conduct themselves in an acceptable		
			manner while on site, both during work		
			hours and after hours.		
			<ul> <li>No loud music permitted at the mining</li> </ul>		
			area.		
			All mining vehicles must be equipped		
			with silencers and kept roadworthy in		
			terms of the Road Transport Act.		
			Waste management		
			Waste material of any description,		
			including receptacles, scrap, rubble		
			and tyres, will be removed entirely from		
			the mining area and disposed of at a		
			recognised landfill facility. It will not be		
			permitted to be buried/burned on site		
			Any effluents containing oil, grease or		
			other industrial substances must be		
			collected in a suitable receptacle and		
			removed from site, for resale/		
			appropriate disposal at a recognised		
			facility.		
			Spills must be cleaned up immediately		

Activities	Phase	Size and scale	Mitigation measures	Compliance with	Time period for
		of disturbance		standards	implementation
			<ul> <li>to the satisfaction of the Regional Manager by removing the spillage together with the polluted soil and disposing of it at a recognised facility. Proof should be filed.</li> <li>Suitable covered receptacles must be available at all times and conveniently placed for waste disposal.</li> <li>Non-biodegradable refuse, like glass bottles, plastic bags, metal scrap, etc., should be stored in a container with a closable lid at a collecting point and collected on a regular basis and disposed of at a recognised landfill site. Specific precautions should be taken to prevent refuse from being dumped on or in the vicinity of the mine area.</li> <li>Biodegradable refuse generated must be handled as indicated above.</li> </ul>		
Replacing of topsoil and rehabilitation of disturbed area	Decommissioning phase	5 ha	<ul> <li>Rehabilitation of excavated area</li> <li>Rocks and coarse material removed from the excavation must be dumped into the excavation.</li> <li>No waste will be permitted to be deposited in the excavations.</li> <li>Once overburden, rocks and coarse natural materials have been added to the excavation and were profiled with acceptable contours and erosion control measures, the topsoil previously stored will be returned to its original depth over the area.</li> </ul>	Rehabilitation MPRDA, 2008 Health and safety MHSA, 1996 OHSA, 1993 OHSAS 18001 Dust and noise NEMAQA, 2004 Regulation 6(1) Weeds CARA, 1983 Waste NEMWA, 2008	Upon cessation of mining

Activities	Phase	Size and scale	Mitigation measures	Compliance with	Time period for
		of disturbance		standards	implementation
			• The area will be fertilised if necessary to		
			allow vegetation to establish rapidly.		
			The site will be seeded with a local or		
			adapted indigenous seed mix in order		
			to propagate the locally or regionally		
			occurring flora, should natural		
			vegetation not re-establish within 6		
			months from site closure.		
			If a reasonable assessment indicates		
			that the re-establishment of vegetation		
			is unacceptably slow, the Regional		
			Manager may require that the soil be		
			analysed and any deleterious effects		
			on the soil arising from the mining		
			operation be corrected and the area		
			seeded with a vegetation seed mix to		
			his or her specification.		
			Rehabilitation of plant area		
			• The compacted areas will be ripped		
			and the topsoil returned over the area.		
			<ul> <li>Coarse natural material used for the</li> </ul>		
			construction of ramps will be removed		
			and dumped into the excavations.		
			<ul> <li>Stockpiles will be removed during the</li> </ul>		
			decommissioning phase, the area		
			ripped and topsoil returned to original		
			depth to provide a growth medium.		
			<ul> <li>On completion of operations, all</li> </ul>		
			structures or objects will be dealt with in		
			accordance with Section 44 of the		
			MPRDA 2002 (Act 28 of 2002):		
			<ul> <li>Where sites have been rendered</li> </ul>		

Activities	Phase	Size and scale	Mitigation measures	Compliance with	Time period for
		of disturbance		standards	implementation
			devoid of vegetation/grass or soils		
			have been compacted by traffic,		
			the surface will be scarified or		
			ripped.		
			<ul> <li>The site will be seeded with a</li> </ul>		
			vegetation seed mix adapted to		
			reflect the local indigenous flora if		
			natural vegetation does not re-		
			establish within 6 months of site		
			closure.		
			<ul> <li>Photographs of the mining area</li> </ul>		
			and office sites, before and during		
			the mining operation and after		
			rehabilitation, will be taken at		
			selected fixed points and kept on		
			record for the information of the		
			Regional Manager.		
			<ul> <li>On completion of mining</li> </ul>		
			operations, the surface of these		
			areas, if compacted due to		
			hauling and dumping operations,		
			will be scarified to a depth of at		
			least 300 mm and graded to an		
			even surface condition. The		
			previously stored topsoil will be		
			returned to its original depth over		
			the area.		
			• Prior to replacing the topsoil, the		
			overburden material that was		
			removed from these areas will be		
			replaced in the same order as it		
			originally occurred.		

Activities	Phase	Size and scale	Mitigation measures	Compliance with	Time period for
		of disturbance		standards	implementation
			• The area will then be fertilized if		
			necessary to allow vegetation to		
			establish rapidly. The site will be		
			seeded with a local, adapted		
			indigenous seed mix if natural		
			vegetation does not re-establish		
			within 6 months after site closure.		
			<ul> <li>If a reasonable assessment</li> </ul>		
			indicates that the re-		
			establishment of vegetation is		
			unacceptably slow, the Regional		
			Manager may require that the soil		
			be analysed and any deleterious		
			effects on the soil arising from the		
			mining operation be corrected		
			and the area be seeded with a		
			seed mix to their specification.		
			Final rehabilitation		
			Rehabilitation of the surface area will		
			entail landscaping, levelling, top		
			dressing, land preparation, seeding (if		
			required) and maintenance, and		
			weed/alien clearing.		
			<ul> <li>All infrastructure, equipment, plant,</li> </ul>		
			temporary housing and other items		
			used during the mining period will be		
			removed from the site (section 44 of		
			the MPRDA).		
			Waste material of any description,		
			including receptacles, scrap, rubble		
			and tyres, will be removed entirely from		
			the mining area and disposed of at a		

Activities	Phase	Size and scale	Mitigation measures	Compliance with	Time period for
		of disturbance		standards	implementation
			recognized landfill facility. It will not be		
			permitted to be buried/burned on site.		
			<ul> <li>Weed/alien clearing will be done in a</li> </ul>		
			sporadic manner during the life of the		
			mining activities. Species regarded as		
			Category 1 weeds according to CARA,		
			1983 – Act 43; Regulations 15 & 16 (as		
			amended in March 2001) must be		
			eradicated from the site.		
			• Final rehabilitation will be completed		
			within a period specified by the		
			Regional Manager.		

#### 4.8 Impact management outcomes

A description of impact management outcomes, identifying the standard of impact management required for the aspects contemplated in paragraph.

Activity	Potential impact	Aspects affected	Phase	Mitigation type	Standard to be achieved
Whether listed or not. E.g. excavations, blasting, stockpiles, discard dumps/ dams, loading, hauling, transport, water supply dams and boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc.	E.g. dust, noise, drainage, surface disturbance, fly rock, surface water contamination, groundwater contamination, air pollution, etc.		In which impact is anticipated. E.g. construction, commissioning, operational decommissioning, closure and post- closure.	Modify, remedy, control or stop through, e.g. noise control measures, storm water control, dust control, rehabilitation, design measures, blasting controls, avoidance, relocation, alternative activity, etc.	Impact avoided, noise levels, dust levels, rehabilitation standards, end-use objectives, etc.
Preparing the surface before blasting(site establishment)	Visual intrusion associated with the establishment of the mining area. Dust nuisance caused	The visual impact may affect the residents of the immediate area. Dust will be	Site establishment/ construction phase	Control: Implementation of proper housekeeping	<ul> <li>Impact on the surrounding environment mitigated until rehabilitation standards can be implemented.</li> <li>Fallout dust levels has to comply with the</li> </ul>
	by soil disturbance.	contained within property boundaries and therefore affect only the landowner.		Control: Dust suppression	<ul> <li>acceptable dust fall rate published for non-residential areas in the National Dust Control Regulations 2013 – 600 &lt; Dust Fall</li> <li>1 200 mg/m<sup>2</sup>/day.</li> <li>Gravimetric dust levels have to comply with the standard published in the NIOSH guidelines – particulates &gt;1/10<sup>th</sup> of the occupational exposure limit. NEMAQA 2004, Regulation 6(1)</li> </ul>
	Noise nuisance caused by machinery	The noise impact should be contained		Control: Noise control measures	<ul> <li>Noise levels on the site must be managed and needs to comply with the</li> </ul>

Activity	Potential impact	Aspects affected	Phase	Mitigation type	Standard to be achieved
	stripping and stockpiling the topsoil.	within property boundaries, but might have a periodic impact on the closest residents.			<ul> <li>standards stipulated in NEMAQA, 2004</li> <li>Regulation 6(1) as well as the noise</li> <li>standards of SANS 10103:2008</li> <li>Employees working in areas with noise</li> <li>levels of more than 82dBA need to be</li> <li>issue with hearing protection.</li> </ul>
	Infestation of the topsoil heaps by weeds and invader plants	Biodiversity		Control and remedy: Implementation of weed control	• The impact must be avoided through the eradication of Category 1 weeds/ invader plants in terms of CARA, 1993 as well as the implementation of the mitigation measures in this document.
	Loss of topsoil due to incorrect storm water management.	Loss of topsoil will affect the rehabilitation of the mining area.		Control: Storm water management	• The impact must be avoided through the implementation of storm water management.
	Contamination of area with hydrocarbons or hazardous waste materials.	Contamination may cause surface or ground water contamination if not addressed		Control and remedy: Implementation of waste management	<ul> <li>The impact must be avoided through the implementation of the mitigation measures stipulated in this document.</li> <li>Should spillage occur, the area needs to be cleaned in accordance with the standards of the NEMWA, 2008.</li> </ul>
Blasting	Health and safety risk posed by blasting activities	Impact might affect the employees working on site.	Operational phase	Control: Health and safety monitoring management	<ul> <li>Impact must be avoided through compliance with the MHSA, 1996, OHSA, 1993 and OHSAS 18001</li> <li>Fallout dust levels must comply with the acceptable dust fall rate published for non-residential areas in the National Dust Control Regulations 2013 – 600 &lt; Dust Fall &lt; 1 200 mg/m<sup>2</sup>/day.</li> </ul>
	Dust nuisance caused by blasting activities	Dependent on the blast, the impact might affect the		Control: Dust suppression	Gravimetric dust levels has to comply with the standard published in the NIOSH guidelines particulates >1/10 <sup>th</sup> of the occupational exposure limit.

Activity	Potential impact	Aspects affected	Phase	Mitigation type	Standard to be achieved
		surrounding community. Blasting will only occur twice a year.			NEMAQA, 2004 Regulation 6(1)
	Noise nuisance caused by blasting activities	Dependent on the blast, the impact might affect the surrounding community. Blasting will only occur twice a year.		Control: Noise control measure	<ul> <li>Noise levels on the site has to be managed and need to comply with the standards stipulated in NEMAQA, 2004 Regulation 6(1) as well as the noise standards of SANS 10103:2008</li> <li>Employees working in areas with noise levels of more than 82dBA need to be issue with hearing protection.</li> </ul>
Excavation	Visual intrusion associated with the excavation activities	The visual impact may affect the residents of the immediate area.	Operational phase	Control: Implementation of proper housekeeping	<ul> <li>Impact on the surrounding environment mitigated until rehabilitation standards can be implemented.</li> </ul>
	Dust nuisance due to excavation activities.	Dust will be contained within the property boundaries and will therefore affect only the landowner.		Control: Dust suppression	<ul> <li>Fallout dust levels must comply with the acceptable dust fall rate published for non-residential areas, as per National Dust Control</li> <li>Regulations 2013 – 600 &lt; Dust Fall &lt; 1 200 mg/m²/day.</li> <li>Gravimetric dust levels must comply with the standard published in the NIOSH guidelines –Particulates &gt;1/10<sup>th</sup> of the occupational exposure limit.</li> <li>NEMAQA, 2004 Regulation 6(1).</li> </ul>
	Noise nuisance generated by excavation equipment	The noise impact must be contained within the boundaries of the property, but might have a periodic impact on the closest residents		Control: Noise control measures	<ul> <li>Noise levels on the site has to be managed and need to comply with the standards stipulated in NEMAQA, 2004 Regulation 6(1) as well as the noise standards of SANS 10103:2008.</li> <li>Employees working in areas with noise</li> </ul>

Activity	Potential impact	Aspects affected	Phase	Mitigation type	Standard to be achieved
					levels of more than 82dBA need to be
					issue with hearing protection.
	Unsafe working	Impact might affect	n	Control: Health and	<ul> <li>Impact must be avoided through</li> </ul>
	conditions for	employees		safety monitoring	compliance with the MHSA, 1996, OHSA,
	employees.			and management	1993 and OHSAS 18001
Excavation	Negative impact on	Biodiversity	Operational phase	Control: Protection	• The impact must be avoided through
	the fauna and flora of			of fauna and flora	implementation of the mitigation
	the area.			through	measures stipulated in this document.
				operational phase	• NEMBA, 2004.
	Contamination of area	Contamination may		Control:	• The impact should be avoided through
	with hydrocarbons or	cause surface or		Implementation of	the implementation the mitigation
	hazardous waste	ground water		waste	measures stipulated in this document.
	materials.	contamination if not		management	• Should spillage however occur the area
		addressed.			needs to be cleaned in accordance
					with the standards of the NEMWA, 2008.
	Weed and invader	Biodiversity		Control:	• The impact should be avoided through
	plant infestation of the			Implementation of	the eradication of Category 1
	area.			weed control	weeds/invader plants in terms of CARA,
					1993 as well as the implementation of the
					mitigation measures in this document.
Crushing	Dust nuisance due to	Dust will be	Operational phase	Control: Dust	• Fallout dust levels has to comply with the
	the crushing activities	contained within the		suppression	acceptable dust fall rate published for
		property boundaries			non-residential areas in the National Dust
		and will therefore			Control Regulations 2013 – 600 < Dust Fall
		affect only the			< 1 200 mg/m²/day.
		landowner.			Gravimetric dust levels have to comply
					with the standard published in the NIOSH
					guidelines – Particulates >1/10 <sup>th</sup> of the
					occupational exposure limit.
					NEMAQA, 2004 Regulation 6(1).
	Noise nuisance	The noise impact		Control: Noise	Noise levels on the site has to be
	generated by the	should be contained		control measures	managed and need to comply with the
	crushing activities	within the boundaries			<b>C C C C C C C C C C</b>

Activity	Potential impact	Aspects affected	Phase	Mitigation type	Standard to be achieved
		of the property, but might have a periodic impact on the closest residents.			<ul> <li>standards stipulated in NEMAQA, 2004</li> <li>Regulation 6(1) as well as the noise</li> <li>standards of SANS 10103:2008.</li> <li>Employees working in areas with noise</li> <li>levels of more than 82dBA need to be</li> <li>issue with hearing protection.</li> </ul>
	Contamination of area with hydrocarbons or hazardous waste materials.	Contamination may cause surface or ground water contamination if not addressed.		Control: Implementation of waste management	<ul> <li>The impact should be avoided through the implementation the mitigation measures stipulated in this document.</li> <li>Should spillage however occur the area needs to be cleaned in accordance with the standards of the NEMWA, 2008.</li> </ul>
	Loss of material due to ineffective storm water handling.	Impact will affect income of applicant.		Control: Storm water control measures	• The impact should be avoided through the implementation of storm water management.
	Weed and invader plant infestation of the area due to the disturbance of the soil	Biodiversity		Control and remedy: Implementation of weed control	<ul> <li>The impact should be avoided through the eradication of Category 1 weeds/invader plants in terms of CARA, 1993 as well as the implementation of the mitigation measures in this document.</li> </ul>
Stockpiling(RoM) and transporting	Dust nuisance from stockpiled material and vehicles transporting the material.	Dust will be contained within the property boundaries and will therefore affect only the landowner.	Operational phase	Control: Dust suppression	<ul> <li>Fallout dust levels has to comply with the acceptable dust fall rate published for non-residential areas in the National Dust Control Regulations 2013 – 600 &lt; Dust Fall &lt; 1 200 mg/m²/day.</li> <li>Gravimetric dust levels have to comply with the standard published in the NIOSH guidelines – Particulates &gt;1/10<sup>th</sup> of the occupational exposure limit.</li> <li>NEMAQA, 2004 Regulation 6(1).</li> </ul>
	Degradation of access roads.	All road users will be affected.		Control and remedy: Road management	• The impact should be avoided through the implementation of the mitigation

Activity	Potential impact	Aspects affected	Phase	Mitigation type	Standard to be achieved
					measures proposed in this document.
	Noise nuisance caused by vehicles.	The noise impact should be contained within the boundaries of the property, but might have a periodic impact on the closest residents.		Control: Noise management monitoring and management	<ul> <li>Noise levels on the site has to be managed and need to comply with the standards stipulated in NEMAQA, 2004 Regulation 6(1) as well as the noise standards of SANS 10103:2008.</li> <li>Employees working in areas with noise levels of more than 82dBA need to be issue with hearing protection.</li> </ul>
Sloping and landscaping during rehabilitation	Contamination of area with hydrocarbons or hazardous waste materials	Contamination may cause surface or ground water contamination if not addressed.	Decommissioning phase	Control: Implementation of waste management	<ul> <li>The impact should be avoided through the implementation the mitigation measures stipulated in this document.</li> <li>Should spillage however occur the area needs to be cleaned in accordance with the standards of the NEM: WA, 2008.</li> </ul>
	Soil erosion	Biodiversity		Control: Soil management	<ul> <li>The impact should be avoided through the implementation the mitigation measures stipulated in this document.</li> <li>CARA, 1993</li> </ul>
	Health and safety risk posed by un-sloped areas	Impact will affect employees and residents of the property		Control: Health and safety monitoring and management.	• The impact should be avoided through compliance with the standards of the MHSA, 1996, OHSA, 1993 and OHSAS 18001
	Dust nuisance caused during sloping and landscaping activities.	Dust will be contained within the property boundaries and will therefore affect only the landowner.		Control: Dust suppression	<ul> <li>Fallout dust levels has to comply with the acceptable dust fall rate published for non-residential areas in the National Dust Control Regulations 2013 – 600 &lt; Dust Fall &lt; 1 200 mg/m²/day.</li> <li>Gravimetric dust levels have to comply with the standard published in the NIOSH guidelines – Particulates &gt;1/10 of the</li> </ul>

Activity	Potential impact	Aspects affected	Phase	Mitigation type	Standard to be achieved
					occupational exposure limit. NEM:AQA, 2004 Regulation 6(1).
	Noise nuisance	The noise impact		Control: Noise	<ul> <li>Noise levels on the site has to be</li> </ul>
	caused by machinery.	should be contained		monitoring	managed and need to comply with the
		within the boundaries			standards stipulated in NEM:AQA, 2004
		of the property, but			Regulation 6(1) as well as the noise
		might have a			standards of SANS 10103:2008.
		periodic impact on			• Employees working in areas with noise
		the closest residents.			levels of more than 82dBA need to be
					issue with hearing protection.
	Contamination of area	Contamination may		Control: Waste	• The impact should be avoided through
	with hydrocarbons or	cause surface or		management	the implementation the mitigation
	hazardous waste	ground water			measures stipulated in this document.
	materials.	contamination if not			• Should spillage however occur the area
		addressed.			needs to be cleaned in accordance
					with the standards of the NEM: WA, 2008.
Replacing of topsoil	Loss of reinstated	Biodiversity and soil	Decommissioning	Control: Soil	• The impact should be avoided through
and rehabilitation of	topsoil due to the	management	phase	management	the implementation the mitigation
disturbed area	absence of				measures stipulated in this document.
	vegetation				• CARA, 1993
	Infestation of the area	Biodiversity and soil		Control and	• The impact should be avoided through
	by weed and invader	management		remedy:	the eradication of Category 1
	plants.			Implementation of	weeds/invader plants in terms of CARA,
				weed control	1993 as well as the implementation of the
					mitigation measures in this document.
			·	·	·

## 4.9 Impact management actions

A description of impact management actions, identifying the manner in which the impact management objectives and outcomes will be achieved.

Activity	Potential impact	Mitigation type	Time period for implementation	Compliance with standards
Whether listed or not,	E.g. dust, noise,	Modify, remedy, control or stop	Describe the time period when the	A description of how each of the
e.g. excavations,	drainage, surface	through, e.g. noise control	measures in the environmental	recommendations in 2.11.6 read with
blasting, stockpiles,	disturbance, fly rock,	measures, storm water control,	management programme must	2.12 and 2.15.2 herein will comply with
discard dumps/dams,	surface water	dust control, rehabilitation,	be implemented. Measures must	any prescribed environmental
loading, hauling,	contamination,	design measures, blasting	be implemented when required.	management standards or practices
transport, water supply	groundwater	controls, avoidance,	With regard to Rehabilitation	that have been identified by
dams, boreholes,	contamination, air	relocation, alternative activity,	specifically this must take place at	Competent Authorities
accommodation,	pollution, etc.	etc. E.g. Modify through	the earliest opportunity. With	
offices, ablution,		alternative method, control	regard to Rehabilitation therefore	
stores, workshops,		through noise control, control	state either – Upon cessation of	
processing plant, storm		through management and	the individual activity or upon the	
water control, berms,		monitoring, and remedy	cessation of mining, bulk sampling	
roads, pipelines,		through rehabilitation.	or alluvial diamond prospecting as	
power lines,			the case may be.	
conveyors, etc.				
Preparing the surface	Visual intrusion	Control: Implementation of	To be implemented daily	Impact on the surrounding
before blasting	associated with the	proper housekeeping	throughout the site establishment /	environment must be mitigated until
	establishment of the		construction phase:	rehabilitation standards can be
	mining area.		Daily compliance monitoring by	implemented in terms of the MRDA.
			site management.	
			<ul> <li>Quarterly compliance</li> </ul>	
			monitoring of site by an	
			• Environmental Control Officer.	
	Dust nuisance caused	Control: Dust suppression	To be implemented daily	Fallout dust levels has to comply
	by the disturbance of		throughout the site establishment /	with the acceptable dust fall rate
	soil.		construction phase:	published for non-residential areas in
			Daily compliance monitoring by	the National Dust Control
			site management.	Regulations 2013 – 600 < Dust Fall < 1
			Quarterly compliance	$200 \text{ ma/m}^2/\text{day}.$
			monitoring of site by an	Gravimetric dust levels have to
			• Environmental Control Officer.	

Activity	Potential impact	Mitigation type	Time period for implementation	Compliance with standards
				comply with the standard published in the NIOSH guidelines – Particulates >1/10 <sup>th</sup> of the occupational exposure limit NEMAQA, 2004 Regulation 6(1)
	Noise nuisance caused by machinery stripping and stockpiling the topsoil.	Control: Noise control measures	<ul> <li>To be implemented daily throughout the site establishment / construction phase:</li> <li>Daily compliance monitoring by site management.</li> <li>Quarterly compliance monitoring of site by an</li> <li>Environmental Control Officer.</li> </ul>	<ul> <li>Noise levels on the site has to be managed and need to comply with the standards stipulated in NEM: AQA, 2004 Regulation 6(1) as well as the noise standards of SANS 10103:2008.</li> <li>Employees working in areas with noise levels of more than 82dBA need to be issue with hearing protection.</li> </ul>
	Infestation of the topsoil heaps by weeds and invader plants	Control and remedy: Implementation of weed control	<ul> <li>To be implemented when necessary throughout the site establishment / construction phase:</li> <li>Daily compliance monitoring by site management.</li> <li>Quarterly compliance monitoring of site by an</li> <li>Environmental Control Officer.</li> </ul>	• The impact should be avoided through the eradication of Category 1 weeds/invader plants in terms of CARA, 1993 as well as the implementation of the mitigation measures in this document.
	Loss of topsoil due to incorrect storm water management.	Control: Storm water management	<ul> <li>To be implemented daily throughout the site establishment / construction phase:</li> <li>Daily compliance monitoring by site management.</li> <li>Quarterly compliance monitoring of site by an Environmental Control officer</li> </ul>	• The impact should be avoided through the implementation of storm water management.

Activity	Potential impact	Mitigation type	Time period for implementation	Compliance with standards
	Contamination of area with hydrocarbons or hazardous waste materials	Control and remedy: Implementation of waste management	<ul> <li>To be implemented daily throughout the site establishment / construction phase:</li> <li>Daily compliance monitoring by site management.</li> <li>Quarterly compliance monitoring of site by an</li> <li>Environmental Control Officer.</li> </ul>	<ul> <li>The impact should be avoided through the implementation of the mitigation measures stipulated in this document.</li> <li>Should spillage however occur the area needs to be cleaned in accordance with the standards of the NEM: WA, 2008.</li> </ul>
Blasting	Health and safety risk posed by blasting activities	Control: Health and safety monitoring and management	<ul> <li>To be implemented when necessary throughout the operational phase:</li> <li>Daily compliance monitoring by site management.</li> <li>Quarterly compliance monitoring of site by an</li> <li>Environmental Control Officer.</li> </ul>	• The impact should be avoided through compliance with the standards of the MHSA, 1996, OHSA, 1993 and OHSAS 18001
	Dust nuisance caused by blasting activities	Control: Dust suppression	<ul> <li>To be implemented daily throughout the operational phase:</li> <li>Daily compliance monitoring by site management.</li> <li>Quarterly compliance monitoring of site by an</li> <li>Environmental Control Officer.</li> </ul>	<ul> <li>Fallout dust levels has to comply with the acceptable dust fall rate published for non-residential areas in the National Dust Control Regulations 2013 – 600 &lt; Dust Fall &lt; 1 200 mg/m<sup>2</sup>/day.</li> <li>Gravimetric dust levels have to comply with the standard published in the NIOSH guidelines – Particulates &gt;1/10<sup>th</sup> of the occupational exposure limit.</li> <li>NEMAQA, 2004 Regulation 6(1)</li> </ul>
	Noise nuisance caused by blasting activities	Control: Noise control measures	To be implemented daily throughout the operational phase: • Daily compliance monitoring by site management.	<ul> <li>Noise levels on the site has to be managed and need to comply with the standards stipulated in NEM: AQA, 2004 Regulation 6(1) as well as the noise standards of SANS</li> </ul>
Activity	Potential impact	Mitigation type	Time period for implementation	Compliance with standards
------------	--	--	---	---
			<ul> <li>Quarterly compliance monitoring of site by an</li> <li>Environmental Control Officer.</li> </ul>	<ul> <li>10103:2008.</li> <li>Employees working in areas with noise levels of more than 82dBA need to be issue with hearing protection.</li> </ul>
Excavation	Visual intrusion associated with the excavation activities	Control: Implementation of proper housekeeping	<ul> <li>To be implemented daily throughout the operational phase:</li> <li>Daily compliance monitoring by site management.</li> <li>Quarterly compliance monitoring of site by an</li> <li>Environmental Control Officer.</li> </ul>	<ul> <li>Impact on the surrounding environment mitigated until rehabilitation standards can be implemented.</li> </ul>
	Dust nuisance due to excavation activities.	Control: Dust suppression	<ul> <li>To be implemented daily throughout the operational phase:</li> <li>Daily compliance monitoring by site management.</li> <li>Quarterly compliance monitoring of site by an</li> <li>Environmental Control Officer.</li> </ul>	<ul> <li>Fallout dust levels has to comply with the acceptable dust fall rate published for non-residential areas in the National Dust Control Regulations 2013 – 600 &lt; Dust Fall &lt; 1 200 mg/m<sup>2</sup>/day</li> <li>Gravimetric dust levels have to comply with the standard published in the NIOSH guidelines – Particulates &gt;1/10<sup>th</sup> of the occupational exposure limit.</li> <li>NEM: AQA, 2004 Regulation 6(1).</li> </ul>
	Noise nuisance generated by excavation equipment.	Control: Noise control measures	<ul> <li>To be implemented daily throughout the operational phase:</li> <li>Daily compliance monitoring by site management.</li> <li>Quarterly compliance monitoring of site by an</li> <li>Environmental Control Officer.</li> </ul>	<ul> <li>Noise levels on the site has to be managed and need to comply with the standards stipulated in NEM: AQA, 2004 Regulation 6(1) as well as the noise standards of SANS 10103:2008.</li> <li>Employees working in areas with noise levels of more than 82dBA</li> </ul>

Activity	Potential impact	Mitigation type	Time period for implementation	Compliance with standards
				need to be issue with hearing protection.
	Unsafe working conditions for employees.	Control: Health and safety monitoring and management	<ul> <li>To be daily throughout the operational phase:</li> <li>Daily compliance monitoring by site management.</li> <li>Quarterly compliance monitoring of site by an</li> <li>Environmental Control Officer.</li> </ul>	<ul> <li>The impact should be avoided through compliance with the standards of the MHSA, 1996, OHSA, 1993 and OHSAS 18001</li> </ul>
	Negative impact on the fauna and flora of the area.	Control: Protection of fauna and flora through operational phase	<ul> <li>To be daily throughout the operational phase:</li> <li>Daily compliance monitoring by site management.</li> <li>Quarterly compliance monitoring of site by an</li> <li>Environmental Control Officer.</li> </ul>	<ul> <li>The impact should be avoided through the implementation of the mitigation measures stipulated in this document.</li> <li>NEM:BA, 2004.</li> </ul>
	Contamination of area with hydrocarbons or hazardous waste materials.	Control: Implementation of waste management	<ul> <li>To be implemented daily throughout the operational phase:</li> <li>Daily compliance monitoring by site management.</li> <li>Quarterly compliance monitoring of site by an</li> <li>Environmental Control Officer.</li> </ul>	<ul> <li>The impact should be avoided through the implementation the mitigation measures stipulated in this document.</li> <li>Should spillage however occur the area needs to be cleaned in accordance with the standards of the NEM: WA, 2008.</li> </ul>
	Weed and invader plant infestation of the area.	Control: implementation of weed control	<ul> <li>To be implemented when necessary throughout the operational phase:</li> <li>Daily compliance monitoring by site management.</li> <li>Quarterly compliance monitoring of site by an</li> <li>Environmental Control Officer.</li> </ul>	• The impact should be avoided through the eradication of Category 1 weeds/invader plants in terms of CARA, 1993 as well as the implementation of the mitigation measures in this document.

Activity	Potential impact	Mitigation type	Time period for implementation	Compliance with standards
Crushing	Dust nuisance due to the crushing activities	Control: Dust suppression	<ul> <li>To be implemented daily throughout the operational phase:</li> <li>Daily compliance monitoring by site management.</li> <li>Quarterly compliance monitoring of site by an</li> <li>Environmental Control Officer.</li> </ul>	<ul> <li>Fallout dust levels has to comply with the acceptable dust fall rate published for non-residential areas in the National Dust Control Regulations 2013 – 600 &lt; Dust Fall &lt; 1 200 mg/m<sup>2</sup>/day.</li> <li>Gravimetric dust levels have to comply with the standard published in the NIOSH guidelines – Particulates &gt;1/10<sup>th</sup> of the occupational exposure limit.</li> <li>NEM: AQA, 2004 Regulation 6(1).</li> </ul>
	Noise nuisance generated by the crushing activities.	Control: Noise control measures	<ul> <li>To be implemented daily throughout the operational phase:</li> <li>Daily compliance monitoring by site management.</li> <li>Quarterly compliance monitoring of site by an</li> <li>Environmental Control Officer.</li> </ul>	<ul> <li>Noise levels on the site has to be managed and need to comply with the standards stipulated in NEM: AQA, 2004 Regulation 6(1) as well as the noise standards of SANS 10103:2008.</li> <li>Employees working in areas with noise levels of more than 82dBA need to be issue with hearing protection.</li> </ul>
	Contamination of area with hydrocarbons or hazardous waste materials.	Control: Implementation of waste management	<ul> <li>To be implemented daily throughout the operational phase:</li> <li>Daily compliance monitoring by site management.</li> <li>Quarterly compliance monitoring of site by an</li> <li>Environmental Control Officer.</li> </ul>	<ul> <li>The impact should be avoided through the implementation the mitigation measures stipulated in this document.</li> <li>Should spillage however occur the area needs to be cleaned in accordance with the standards of the NEM: WA, 2008.</li> </ul>
Stockpiling(RoM) and transporting	Visual intrusion associated with the stockpiled material and	Control: Implementation of proper housekeeping	To be implemented daily throughout the operational phase:	<ul> <li>Impact on the surrounding environment mitigated until</li> </ul>

Activity	Potential impact	Mitigation type	Time period for implementation	Compliance with standards
	vehicles transporting the material.		<ul> <li>Daily compliance monitoring by site management.</li> <li>Quarterly compliance monitoring of site by an</li> <li>Environmental Control Officer.</li> </ul>	rehabilitation standards can be implemented.
	Loss of material due to ineffective storm water handling.	Control: Storm water control measures	<ul> <li>To be implemented daily throughout the operational phase:</li> <li>Daily compliance monitoring by site management.</li> <li>Quarterly compliance monitoring of site by an Environmental Control Officer.</li> </ul>	• The impact should be avoided through the implementation of storm water management
	Weed and invader plant infestation of the area due to the disturbance of the soil	Control and remedy: Implementation of weed control	<ul> <li>To be implemented when necessary throughout the operational phase:</li> <li>Daily compliance monitoring by site management.</li> <li>Quarterly compliance monitoring of site by an</li> <li>Environmental Control Officer.</li> </ul>	• The impact should be avoided through the eradication of Category 1 weeds/invader plants in terms of CARA, 1993 as well as the implementation of the mitigation measures in this document.
	Dust nuisance from stockpiled material and vehicles transporting the material.	Control: Dust suppression	<ul> <li>To be implemented daily throughout the operational phase:</li> <li>Daily compliance monitoring by site management.</li> <li>Quarterly compliance monitoring of site by an</li> <li>Environmental Control Officer.</li> </ul>	<ul> <li>Fallout dust levels has to comply with the acceptable dust fall rate published for non-residential areas in the National Dust Control Regulations 2013 – 600 &lt; Dust Fall &lt; 1 200 mg/m²/day.</li> <li>Gravimetric dust levels have to comply with the standard published in the NIOSH guidelines – Particulates &gt;1/10<sup>th</sup> of the occupational exposure limit.</li> <li>NEM: AQA, 2004 Regulation 6(1).</li> </ul>

Activity	Potential impact	Mitigation type	Time period for implementation	Compliance with standards		
	Degradation of access roads	Control and remedy: Road management	<ul> <li>To be implemented when necessary throughout the operational phase:</li> <li>Daily compliance monitoring by site management.</li> <li>Quarterly compliance monitoring of site by an Environmental Control Officer.</li> </ul>	• The impact should be avoided through the implementation of the mitigation measures proposed in this document.		
	Noise nuisance caused by vehicles.	Control: Noise management monitoring and management	<ul> <li>To be implemented daily throughout the operational phase:</li> <li>Daily compliance monitoring by site management.</li> <li>Quarterly compliance monitoring of site by an</li> <li>Environmental Control Officer.</li> </ul>	<ul> <li>Noise levels on the site has to be managed and need to comply with the standards stipulated in NEM: AQA, 2004 Regulation 6(1) as well as the noise standards of SANS 10103:2008.</li> <li>Employees working in areas with noise levels of more than 82dBA need to be issue with hearing protection.</li> </ul>		
	Contamination of area with hydrocarbons or hazardous waste materials.	Control: Implementation of waste management	<ul> <li>To be implemented daily throughout the operational phase:</li> <li>Daily compliance monitoring by site management.</li> <li>Quarterly compliance monitoring of site by an</li> <li>Environmental Control Officer.</li> </ul>	<ul> <li>The impact should be avoided through the implementation the mitigation measures stipulated in this document.</li> <li>Should spillage however occur the area needs to be cleaned in accordance with the standards of the NEMWA, 2008.</li> </ul>		
Sloping and landscaping during rehabilitation	Soil erosion	Control: Soil management	<ul> <li>To be implemented throughout the rehabilitation / closure phase:</li> <li>Daily compliance monitoring by site management.</li> <li>Compliance monitoring of site by an Environmental Control Officer.</li> </ul>	<ul> <li>The impact should be avoided through the implementation the mitigation measures stipulated in this document.</li> <li>CARA, 1993</li> </ul>		

Activity	Potential impact	Mitigation type	Time period for implementation	Compliance with standards
	Health and safety risk	Control: Health and safety	To be implemented throughout	<ul> <li>The impact should be avoided</li> </ul>
	posed by un-sloped	monitoring and management.	the rehabilitation / closure phase:	through compliance with the
	areas		<ul> <li>Daily compliance monitoring by</li> </ul>	standards of the MHSA, 1996, OHSA,
			site management.	1993 and OHSAS 18001
			<ul> <li>Compliance monitoring of site</li> </ul>	
			by an Environmental Control	
			Officer.	
	Dust nuisance caused	Control: Dust suppression	To be implemented throughout	Fallout dust levels has to comply
	during sloping and		the rehabilitation / closure phase:	with the acceptable dust fall rate
	landscaping activities.		Daily compliance monitoring by	published for non-residential areas in
			site management.	the National Dust Control
			<ul> <li>Compliance monitoring of site</li> </ul>	Regulations 2013 – 600 < Dust Fall < 1
			by an Environmental Control	200 mg/m²/day.
			Officer.	Gravimetric dust levels have to
				comply with the standard published
				in the NIOSH guidelines –
				Particulates >1/10 <sup>th</sup> of the
				occupational exposure limit.
				NEM: AQA, 2004 Regulation 6(1).
	Noise nuisance caused	Control: Noise monitoring	To be implemented throughout	Noise levels on the site has to be
	by machinery.		the rehabilitation / closure phase:	managed and need to comply with
			Daily compliance monitoring by	the standards stipulated in NEM:
			site management.	AQA, 2004 Regulation 6(1) as well as
			<ul> <li>Compliance monitoring of site</li> </ul>	the noise standards of SANS
			by an Environmental Control	10103:2008.
			Officer.	<ul> <li>Employees working in areas with</li> </ul>
		· · · · ·		noise levels of more than 82dBA
				need to be issue with hearing
				protection.
	Contamination of area	Controls: Waste management	To be implemented throughout	• The impact must be avoided
	with hydrocarbons or		the rehabilitation / closure phase:	through implementation of
			<ul> <li>Daily compliance monitoring by</li> </ul>	mitigation measures stipulated in this
			site management.	document.

Activity	Potential impact	Mitigation type	Time period for implementation	Compliance with standards
	hazardous waste materials.		Compliance monitoring of site by an Environmental Control Officer.	<ul> <li>Should spillage however occur the area needs to be cleaned in accordance with the standards of the NEMWA, 2008.</li> </ul>
Replacing of topsoil and rehabilitation of disturbed area	Loss of reinstated topsoil due to the absence of vegetation	Control: Soil management	<ul> <li>To be implemented throughout the rehabilitation / closure phase:</li> <li>Daily compliance monitoring by site management.</li> <li>Compliance monitoring of site by an Environmental Control Officer.</li> </ul>	<ul> <li>The impact should be avoided through the implementation the mitigation measures stipulated in this document.</li> <li>CARA, 1993</li> </ul>
	Infestation of the area by weed and invader plants.	Control and remedy: Implementation of weed control	<ul> <li>To be implemented throughout the rehabilitation / closure phase:</li> <li>Daily compliance monitoring by site management.</li> <li>Compliance monitoring of site by an Environmental Control Officer.</li> </ul>	• The impact should be avoided through the eradication of Category 1 weeds/invader plants in terms of CARA, 1993 as well as the implementation of the mitigation measures in this document.

#### 5 Determination of the amount of financial provision

## 5.1 Closure objectives and the extent to which they have been aligned to the baseline environment described under the Regulation

Once mining activities cease, the area will be fully rehabilitated. The perimeter walls of the opencast pit will either be sloped as was before to the pit floor to prevent soil erosion. Compacted soil will be ripped and levelled in order to re-establish a growth medium. Stockpiles will be removed during the decommissioning phase, the stockpile area ripped and available topsoil that was removed will be spread over worked areas to enhance the establishment of vegetation. All waste materials will be removed from the site and dumped at recognised landfill sites. The applicant will comply with the minimum closure objectives as prescribed by DMRE.

# 5.2 Confirm specifically that the environmental objectives in relation to closure have been consulted with landowner and I&APs

This report, the Basic Assessment Report, includes all the environmental objectives in relation to closure and is available for perusal by I&AP's and stakeholders. Any additional comments received during the commenting period will be added to the Final Basic Assessment Report to be submitted to DMR for approval.

# 5.3 Provide a rehabilitation plan that describes and shows the scale and aerial extent of the main mining activities, including the anticipated mining area at the time of closure

The requested rehabilitation plan is attached as appendix. Upon closure of the mine, all infrastructures will be removed. The compacted areas will be ripped and levelled upon which the topsoil will be replaced. The sides of the pit will be sloped to ensure safety and prevent erosion. No permanent structures will remain upon closure of the site.

# 5.4 Explain why it can be confirmed that the rehabilitation plan is compatible with the closure objectives

The decommissioning phase will entail the rehabilitation of the mining site. Upon cessation of the mining activities, the area will be fully rehabilitated. The perimeter walls of the opencast pit will be sloped as was before to the pit floor to prevent soil erosion. The rehabilitation of the granite pit as indicated on the rehabilitation plan attached as appendix will comply with the minimum closure objectives as prescribed by DMRE and detailed in the following, and therefore is deemed to be compatible.

#### 5.4.1 Rehabilitation of the excavated area

• Rocks and coarse material removed from the excavation must be dumped into the

excavation.

- No waste will be permitted to be deposited in the excavations.
- Once overburden, rocks and coarse natural materials has been added to the excavation and was profiled with acceptable contours and erosion control measures, the topsoil previously stored will be returned to its original depth over the area.
- The area will be fertilised if necessary, to allow vegetation to establish rapidly. The site will be seeded with a local or adapted indigenous seed mix in order to propagate the locally or regionally occurring flora, should natural vegetation not re-establish within 6 months from site closure.
- If a reasonable assessment indicates that the re-establishment of vegetation is unacceptably slow, the Regional Manager may require that the soil be analysed and any deleterious effects on the soil arising from the mining operation be corrected and the area be seeded with a vegetation seed mix to their specification.

#### 5.4.2 Rehabilitation of plant area

- The compacted areas will be ripped for increasing vegetation growth.
- Coarse natural material used for the construction of ramps will be removed and dumped into the excavations.
- Stockpiles will be removed during the decommissioning phase, the area ripped and the material returned to pit to provide a growth medium.
- On completion of operations, all structures or objects will be dealt with in accordance with Section 44 of the MPRDA, 2002 (Act 28 of 2002):
  - Where sites have been rendered devoid of vegetation/grass or soils have been compacted owing to traffic, the surface will be scarified or ripped.
  - The site will be seeded with a vegetation seed mix adapted to reflect the local indigenous flora if natural vegetation does not re-establish within 6 months of the closure of the site.
- Photographs of the mining area and office sites, before and during the mining operation and after rehabilitation, will be taken at selected fixed points and kept on record for the information of the Regional Manager.
- On completion of mining operations, the surface of these areas, if compacted due to hauling and dumping operations, will be scarified to a depth of at least 300 mm and graded to an even surface condition and the previously stored topsoil will be returned to its original depth over the area.
- The area shall then be fertilised if necessary, to allow vegetation to establish rapidly. The site will be seeded with a local, adapted indigenous seed mix if natural

vegetation does not re-establish within 6 months after site closure.

• If a reasonable assessment indicates that the re-establishment of vegetation is unacceptably slow, the Regional Manager may require that the soil be analysed and any deleterious effects on the soil arising from the mining operation be corrected and the area be seeded with a seed mix to their specification.

#### 5.4.3 Final rehabilitation

- Rehabilitation of the surface area will entail landscaping, levelling, top dressing, land preparation, seeding (if required), maintenance, and weed/ alien clearing.
- All infrastructures, equipment, plant, temporary housing and other items used during the mining period will be removed from the site (section 44 of the MPRDA).
- Waste material of any description, including receptacles, scrap, rubble and tyres, will be removed entirely from the mining area and disposed of at a recognised landfill facility. It will not be permitted to be buried/burned on site.
- Weed/alien clearing will be done in a sporadic manner during the life of the mining activities.
- Species considered Category 1 weeds as per CARA, 1983 Act 43, Regulations 15 & 16 (as amended in March 2001) must be eradicated from site.
- Final rehabilitation will be completed within a period specified by the Regional Manager.

# 5.5 Calculate and state the quantum of the financial provision required to manage and rehabilitate the environment in accordance with the applicable guideline

The calculation of the quantum for financial provision was according to Section B of the working manual.

#### 5.5.1 Mine type and saleable mineral by-product

Mine type	Granite
Saleable mineral by-product	None

### 5.5.2 Risk ranking

Primary risk ranking	C (Low risk)
Revised risk ranking	N/A

#### 5.5.3 Environmental sensitivity of the mine area

Environmental sensitivity of the mine area	Low
5.5.4 Level of information	

Level of information available	_imited			

#### 5.5.5 Identify closure components

Component nr	Main description	Applic cl com	cability of osure ponents
1	Dismantling of processing plant and related structures (including		No
	overland conveyors and power lines)		
2 (A)	Demolition of steel buildings and structures		No
2 (B)	Demolition of reinforced concrete buildings and structures		No
3	Rehabilitation of access roads		No
4 (A)	Demolition and rehabilitation of electrified railway lines		No
4 (B)	Demolition and rehabilitation of non-electrified railway lines		No
5	Demolition of housing and facilities		No
6	Opencast rehabilitation including final voids and ramps	Yes	
7	Sealing of shafts, adits and inclines		No
8 (A)	Rehabilitation of overburden and spoils	Yes	
8 (B)	Rehabilitation of processing waste deposits and evaporation ponds		No
	(basic, salt-producing)		
8 (C)	Rehabilitation of processing waste deposits and evaporation ponds		No
	(acidic, metal-rich)		
9	Rehabilitation of subsided areas		No
10	General surface rehabilitation, including grassing of all denuded	Yes	
	areas		
	River diversions		No
12	Fencing		No
13	Water management (Separating clean and dirty water, managing		No
	polluted water and managing the impact on groundwater)		
14	2 to 3 years of maintenance and aftercare		No

#### 5.5.6 Calculation of closure costs

"Rules-based" assessment of the quantum for financial provision.

	CALCULATION OF THE QUANTUM						
Applicant: Evaluator:	Minzomanzi (Pty) Ltd Livhuwani Sigwadi				Ref No.: Date:	KZN 30/8	5/1/3/2/10695 MP Sep-20
No.	Description	Unit	A Quantity	B Master Rate	C Multiplication factor	D Weighting factor 1	E=A*B*C*D Amount (Rands)
1	Dismantling of processing plant and related structures (including overland conveyors and powerlines)	m3	0	16	1	1	0
2 (A) 2(B)	Demolition of steel buildings and structures Demolition of reinforced concrete buildings and struct	m2 m2	0	228 336	1	1 1	0
3 4 (A)	Rehabilitation of access roads Demolition and rehabilitation of electrified railway lines	<b>m2</b> m	<b>300</b> 0	41 395	<b>0,01</b>	<b>1</b> 1	123 0
4 (A) 5	Demolition and rehabilitation of non-electrified railw ay lines Demolition of housing and/or administration facilities	m m2	0	216 455	1 1	1	0
6 7	Opencast rehabilitation including final voids and ramps Sealing of shafts adits and inclines	ha m3	4,96 0	238697 122	0,05 1	1	59196,856 0
8 (A)	Rehabilitation of overburden and spoils Rehabilitation of processing waste deposits and evaporation	ha	0	159131 198195	1	1	0
8 (C)	ponds (non-polluting potential) Rehabilitation of processing waste deposits and evaporation ponds (polluting potential)	ha	0,05	5575653	1	1	278782,65
9	Rehabilitation of subsided areas	ha	0	133249	1	1	0
10	General surface rehabilitation	ha	4,96	126059	0,05	1	31262,632
11	River diversions	ha	0	126059	1	1	0
12	Fencing	m	0	144	1	1	0
13	Water management	ha	0,03	47931	0,1	1	143,793
14	Z to 3 years of maintenance and aftercare	ha	4,96	16/76	0,05	1	4160,448
15 (A) 15 (B)	Specialist study	Sum	0	0	1	1	0
15 (D)		Juin	0	0 🤟	Sub Tot	tal 1	373669,379
1         Preliminary and General         44840,3			32548	weighting 1	factor 2	44840,32548	
2	Contingencies			373	66,9379		37366,9379
SIGN	Kenneth Singo				Subtot	al 2	455876,64
DATE	2020/09/08				VAT (1	5%)	212545,57
	Grand Total 668422						668422

The amount that will be necessary for the rehabilitation of damages caused by the operation, both sudden closures during the normal operation of the project and at final, planned closure gives a sum total of **R 668422**.

#### 5.6 Confirm that the financial provision will be provided as determined

The financial provision will be provided as determined. Mechanisms for monitoring compliance with a performance assessment against the EMP and reporting.

Page 132 of 228

#### 5.7 Mechanisms for compliance monitoring against EMP

Mechanisms for monitoring compliance with and performance assessment against the environmental management programme and reporting thereon, including:

- a) Monitoring of Impact Management Actions
- b) Monitoring and reporting frequency
- c) Responsible persons
- d) Time period for implementing impact management actions
- e) Mechanisms for monitoring compliance

<ul> <li>b) Monitoring and reporting frequency</li> <li>c) Responsible persons</li> <li>d) Time period for implementing impact management actions</li> <li>e) Mechanisms for monitoring compliance</li> </ul>					
Source activity	Impacts required monitoring programme	Functional requirements for monitoring	Roles and responsibilities for the execution of monitoring programmes	Monitoring and reporting frequency and time periods for implementing impact management actions	
<ul> <li>Blasting</li> <li>Excavation</li> <li>Crushing</li> <li>Stockpiling and transporting</li> <li>Sloping and landscaping during rehabilitation</li> </ul>	<ul> <li>Dust monitoring</li> <li>The dust generated by the mining activities should be continuously monitored and addressed by the implementation of dust suppression methods.</li> </ul>	Dust handling and monitoring • Dust suppression equipment, like a water car and water dispenser. The applicant already has this equipment available.	<ul> <li>Role <ul> <li>Site Manager to ensure compliance with EMPr guidelines.</li> <li>Compliance to be monitored by the Environmental Control Officer.</li> </ul> </li> <li>Responsibility <ul> <li>Control dust liberation into surrounding environment by using, e.g., water spraying and/or other dust-allaying agents.</li> <li>Limit speed on access roads to 40km/h to prevent excess dust generation.</li> <li>Spray roads with water/environmentally-friendly dust allaying agent that contains no PCBs (e.g. DAS products) if dust is generated above acceptable limits.</li> <li>Assess effectiveness of dust suppression equipment.</li> <li>Re-vegetate all disturbed/exposed areas as soon as possible to prevent any dust source from being created.</li> </ul> </li> </ul>	<ul> <li>Throughout construction, operational and decommissioning phase</li> <li>Daily compliance monitoring by site management.</li> <li>Quarterly compliance monitoring of site by an Environmental Control Officer.</li> </ul>	
<ul><li>Blasting</li><li>Excavation</li><li>Crushing</li><li>Sloping and</li></ul>	<ul> <li>Noise monitoring</li> <li>The noise generated by the mining activities should be</li> </ul>	Noise handling and monitoring • Site manager to ensure that the vehicles are	<ul> <li>Role</li> <li>Site Manager to ensure compliance with EMPr guidelines.</li> <li>Compliance to be monitored by the Environmental Control Officer.</li> <li>Responsibility</li> </ul>	<ul> <li>Throughout construction,</li> <li>operational and</li> <li>decommissioning phase</li> <li>Daily compliance</li> <li>monitoring by site</li> </ul>	

Page 133 of 228

Source activity	Impacts required monitoring programme	Functional requirements for monitoring	Roles and responsibilities for the execution of monitoring programmes	Monitoring and reporting frequency and time periods for implementing impact management actions
landscaping	continuously	equipped with	Ensure that staff conduct themselves in an acceptable	management.
during	monitored, and any	silencers and kept	manner while on site.	<ul> <li>Quarterly compliance</li> </ul>
rehabilitation	excessive noise	roadworthy.	<ul> <li>No loud music permitted at mining area.</li> </ul>	monitoring of site by an
	should be addressed.	<ul> <li>Compliance with</li> </ul>	• Ensure that all mining vehicles are equipped with silencers	Environmental Control
		the appropriate	and kept roadworthy in terms of the Road Transport Act.	Officer.
		legislation with	<ul> <li>Plan the type, duration and timing of the blasting</li> </ul>	
		respect to noise will	procedures with due cognizance of other land users and	
		be mandatory.	structures in the vicinity.	
			<ul> <li>Notify surrounding land owners in writing prior blasting</li> </ul>	
			occasions.	
			• Use noise mufflers and/or soft explosives during blasting.	
<ul> <li>Excavation</li> </ul>	Management of weed	Management of	Role	Throughout operational and
Stockpiling and	or invader plants	weed or invader	• Site Manager to ensure compliance with EMPr guidelines.	decommissioning phase
transporting	• The presence of	plants	<ul> <li>Compliance to be monitored by the Environmental</li> </ul>	<ul> <li>Daily compliance</li> </ul>
	weed and/or invader	<ul> <li>Removal of weeds</li> </ul>	Control Officer.	monitoring by site
	plants should be	should be manually	Responsibility	management.
	continuously	or by the use of an	<ul> <li>Implement a weed and invader plant control</li> </ul>	<ul> <li>Quarterly compliance</li> </ul>
	monitored, and any	approved	management plan.	monitoring of site by an
	unwanted plants	herbicide	Control declared invader or exotic species on the	Environmental Control
	should be removed.		rehabilitated areas.	Officer.
			• Keep the temporary topsoil stockpiles free of weeds.	
<ul> <li>Sloping and</li> </ul>	Surface and storm	Surface and storm	Role	
Landscaping	water monitoring	water handling	• Site Manager to ensure compliance with EMPr guidelines.	
during	<ul> <li>The effectiveness of</li> </ul>	<ul> <li>Trenches and</li> </ul>	Compliance to be monitored by the Environmental	
rehabilitation	the storm water	contours to be	Control Officer.	
	infrastructure needs	made to direct	Responsibility	
	to be continuously	storm- and runoff	Divert storm water around topsoil heaps, stockpile areas	
	monitored.	water around the	and access roads to prevent erosion and material loss.	
		stockpile areas.	Divert runoff water around the stockpile areas with	
			trenches and contour structures to prevent erosion of the	

Source activity	Impacts required monitoring programme	Functional requirements for monitoring	Roles and responsibilities for the execution of monitoring programmes	Monitoring and reporting frequency and time periods for implementing impact management actions
			<ul> <li>work areas.</li> <li>Conduct mining in accordance with the Best Practice Guideline for small scale mining that relates to storm water management, erosion and sediment control and waste management, developed by the DWS, and any other conditions the DWS may impose.</li> </ul>	
<ul> <li>Blasting</li> <li>Excavation</li> <li>Sloping and Landscaping during rehabilitation</li> </ul>	Management of health and safety • All health and safety aspects need to be monitored on a daily basis.	<ul> <li>Management of health and safety risks</li> <li>Site manager to ensure that workers are equipped with required PPE while operating on site.</li> <li>The necessary warning signs must be present at the site to inform the public and workers of mining activities.</li> </ul>	<ul> <li>Role <ul> <li>Site Manager to ensure compliance with EMPr guidelines.</li> <li>Compliance to be monitored by the Environmental Control Officer.</li> </ul> </li> <li>Responsibility <ul> <li>Submit an application for approval of access onto the R555 to the Department of Roads and Public Works prior to the commencement of work.</li> <li>Inform the Traffic Department of each blast. If necessary, arrange for temporary road closure during a blast.</li> <li>Plan the type, duration and timing of the blasting procedures with due cognizance of other land users and structures in the vicinity.</li> <li>Inform the surrounding landowners and communities of any blasting event.</li> <li>Use noise mufflers and/or soft explosives during blasting.</li> <li>Limit fly rock.</li> <li>Remove all fly rock (diameter 150mm and larger) which falls beyond working area, together with the rock spill.</li> <li>Ensure that workers have access to the correct PPE as required by law.</li> </ul> </li> </ul>	<ul> <li>Throughout construction, operational and decommissioning phase</li> <li>Daily compliance monitoring by site management.</li> <li>Quarterly compliance monitoring of site by an Environmental Control Officer</li> </ul>

Source activity	Impacts required monitoring programme	Functional requirements for monitoring	Roles and responsibilities for the execution of monitoring programmes	Monitoring and reporting frequency and time periods for implementing impact management actions
<ul> <li>Excavation</li> </ul>	Waste management	Waste management	Role	Throughout construction,
Crushing	Management of	Closed containers	• Site Manager to ensure compliance with EMPr guidelines.	operational and
stockpiling(RoM)	waste should be a	for the storage of	Compliance to be monitored by the Environmental	decommissioning phase
and	daily monitoring	general/hazardous	Control Officer.	Dally compliance
transporting	activity.	waste until waste is	Responsibility	monitoring by site
<ul> <li>Sloping and</li> </ul>	Hydrocarbon spills	removed to the	Ensure that vehicle repairs only take place in the service	management.
landscaping	need to be cleaned	appropriate landfill	bay area and all waste products are disposed of in a 2001	Quarterly compliance
during	immediately and the	site.	closed container/bin inside the emergency service area.	monitoring of sife by an
rehabilitation	site manager should	Hydrocarbon spill	Collect any ethluents containing oil, grease or other	
	check compliance	kits to enable	industrial substances in a suitable receptacle and	Officer.
	daily.	sufficient clean-up	remove from site, for resale or appropriate disposal at a	
		of contaminated	recognised facility.	
		areas.	Clean spills immediately to the satisfaction of the	
		• Drip trays should be	Regional Manager by removing the spillage and polluted	
		available to place	soil and by disposing of them at a recognised facility.	
		underneath haul	Ensure availability of suitable covered, conveniently	
		vehicles while the	placed receptacles at all times for waste disposal.	
		vehicles are parked	Place all used oils, grease or hydraulic fluids therein and	
		at night.	remove receptacles from site regularly for disposal at a	
		<ul> <li>Should a vehicle</li> </ul>	registered/licensed hazardous disposal facility.	
		have a break	• Store non-biodegradable refuse such as glass bottles,	
		down, it should be	plastic bags, metal scrap, etc., in a container with a	
		serviced	closable lid at a collecting point. Collection should take	
		immediately.	place regularly and disposed of at the recognised landfill	
			site. Prevent refuse from being dumped on or in the	
			vicinity of the mine area.	
			Biodegradable refuse to be handled as indicated above.	

Source activity	Impacts required monitoring programme	Functional requirements for monitoring	Roles and responsibilities for the execution of monitoring programmes	Monitoring and reporting frequency and time periods for implementing impact management actions
Stockpiling and	Management of	Management of	Role	Throughout construction,
transporting	access roads	access roads	• Site Manager to ensure compliance with EMPr guidelines.	operational and
	<ul> <li>Access road</li> </ul>	<ul> <li>Dust suppression</li> </ul>	Compliance to be monitored by the Environmental	decommissioning phase
	conditions must be	equipment such as	Control Officer.	<ul> <li>Daily compliance</li> </ul>
	continuously	a water car and	Responsibility	monitoring by site
	monitored.	dispenser.	Maintain newly constructed access roads (if applicable)	management.
	Vehicles carrying	<ul> <li>Trenches and</li> </ul>	to minimise dust, erosion or undue surface damage.	<ul> <li>Quarterly compliance</li> </ul>
	materials has to be	contours to be	• Divert storm water around access roads to prevent	monitoring of site by an
	equipped with	made to direct	erosion.	<ul> <li>Environmental Control</li> </ul>
	adequate tarpaulin	storm- and runoff	• Erosion of access road: Restrict vehicular movement to	Officer.
	type covers to ensure	water around the	existing access routes to prevent crisscrossing of tracks	
	that material being	access roads.	through undisturbed areas.	
	transported will not		Cover vehicles carrying materials with adequate	
	leave the vehicle		tarpaulin type covers to ensure that material being	
	during transportation.		transported does leave the vehicle during transportation.	
			• Ensure vehicles entering and using the public road	
			system from the site does not exceed the permissible	
			legal limits on gross vehicle mass and individual axle	
			loads as prescribed in terms of the National Road Traffic	
			Act (Act No 93 of 1996).	

#### 5.8 Indicate frequency of the submission of the performance assessment/ environmental audit report

Monitoring aspect	Time frames	Reporting
Dust handling	Throughout construction,	
	operational and	<ul> <li>Daily compliance</li> </ul>
Noise handling	decommissioning phase	monitoring by site
Management of weed/invader plants	Throughout operational and	management
Surface and storm water handling	decommissioning phase	Quarterly compliance
Management of health and safety risks	Throughout construction,	monitoring of site by an
Waste management	operational and	Environmental Control
Management of access roads	decommissioning phase	Officer
Topsoil handling		

The committed time frames for monitoring and reporting are stipulated in the following:

It is proposed that the performance assessment/environmental audit report be quarterly submitted to DMR.

#### 5.9 Environmental Awareness Plan

# 5.9.1 Manner in which the applicant intends to inform employees of any environmental risk which may result from their work

Training, as detailed below, will address the specific measures and actions required for specific emergency events. In this way, each employee will be provided the knowledge required for their job to, firstly, prevent impact and secondly identify if an impact is likely to occur and then to report the possibility of risk or impact immediately so as to ensure immediate response. The most likely potential environmental emergencies in this proposed mining operation are fires and explosion, chemical spills/leaks, and flooding. In the case of environmental emergencies, the remedial measures and actions as listed in the Emergency Response Plan should be followed, in addition the following relevant authorities should be contacted. A detailed Emergency Response Plan of the specific proposed land should be done and attached as appendix. See an Emergency Response Plan as appendix

#### 5.10 Specific information required by the Competent Authority

Among others, confirm that the financial provision will be reviewed annually.

The applicant undertakes to annually review and update the financial provision calculation, upon which it will be submitted to DMR for review and approved as sufficient to cover the environmental liability at the time and for closure of the mine at that time.

#### 6 Undertaking

The EAP herewith confirms

- the correctness of the information provided in the reports
- the inclusion of comments and inputs from stakeholders and I&APs

- the inclusion of inputs and recommendations from the specialist reports where relevant
- that the information provided by the EAP to I&APs and any response of the EAP to comments or inputs made by I&APs are correctly reflected herein

#### Signature of the Environmental Assessment Practitioner

Singo Consulting (Pty) Limited

#### Name of company

11/02/2021

Date

-END-

### Appendix A: Mine activities map

### Appendix B: Rehabilitation plan

### Appendix C: Correspondence with stakeholders

From: livhuwani@singoconsulting.co.za <livhuwani@singoconsulting.co.za>
Sent: Tuesday, 11 August 2020 10:05
To: 'govenders2@dws.gov.za' <govenders2@dws.gov.za>
Cc: 'Kenneth, Singo' <kenneth@singoconsulting.co.za>; 'admin@singoconsulting.co.za'

<admin@singoconsulting.co.za>; 'sithabile@singoconsulting.co.za' <sithabile@singoconsulting.co.za> Subject: MINING PERMIT APPLICATIONS AND STAKEHOLDER INVITATION TO COMMENT. DMR REF: KZN 30/5/1/3/2/10694 MP, DMR REF: KZN 30/5/1/3/2/10695 MP AND DMR REF: KZN 30/5/1/3/2/10696 MP

Good day,

I hope this email finds you well.

Singo Consulting (Pty) Ltd on behalf of **Mfolozi Resources (Pty)** Ltd (DMR REF: KZN 30/5/1/3/2/10694 MP), **Minzomanzi (Pty)** Ltd (DMR REF: KZN 30/5/1/3/2/10695 MP) and **Silver Oak Mining (Pty)** Ltd (DMR REF: KZN 30/5/1/3/2/10696 MP), hereby wishes to inform you that it has submitted Mining Permit applications together with an Environmental Authorizations to the KwaZulu-Natal Department of Mineral Resources (DMR) for the proposed mining establishment of **Granite/Syenite** on a portion of the Remaining Extent of the farm Qiko 17448 ET and farm 17449 ET, situated under the Magisterial District of Umzinto, KwaZulu-Natal Province.

This Notification is being given in compliance with the terms of: Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA), National Environmental Management Act, 1998 (Act No. 107 of 1998), and EIA Regulations (as amended, 07 April 2017) which requires that stakeholders must be notified of above mentioned companies' s intention to obtain a Mining Permits for the abovementioned mineral.

This invitation is being extended to you because the department that you represent might be somehow enforcing any of the Republic of South Africa's laws of which ensures; prevention of pollution & environmental degradation, promotes sustainable development & socio-economic development, or instead might be affected by mining activities. Hence you are being offered an opportunity to:

- Register as an I&AP and to respond to the environmental compliance process;
- Raise issues of concern and provide suggestions for enhanced benefits;
- Contribute to local knowledge;
- Comment on the Draft Basic Assessment Report (DBAR) & Environmental Management Program (EMP)

Singo Consulting (Pty) Ltd has been appointed as an independent Environmental Assessment Practitioner (EAP) to manage the environmental authorization process, by conducting Environmental Impact Assessment, Public Participation for the proposed project and compile an Environmental Management Plan. A Basic Assessment process has commenced, for your participation kindly fill the comment form on the last page of the attached BID and register your comments, issues or questions that you may have about the proposed project. Should you need any clarity on the attached documents or have any queries with regards to the project, please do not hesitate to contact me on the details below.

Please find the attached Background Information Documents (BID) for detailed description of the proposed projects and timelines.

If you know anyone who might be interested in this project, kindly forward this email to that person.

Regards,



From: livhuwani@singoconsulting.co.za <livhuwani@singoconsulting.co.za > Sent: Saturday, 08 August 2020 07:53

**To:** 'Nsele NseleSi@eskom.co.za' <Nsele NseleSi@eskom.co.za>

Cc: 'Kenneth, Singo' <kenneth@singoconsulting.co.za>; 'admin@singoconsulting.co.za' <admin@singoconsulting.co.za>; 'sithabile@singoconsulting.co.za' <sithabile@singoconsulting.co.za> Subject: MINING PERMIT APPLICATIONS AND STAKEHOLDER INVITATION TO COMMENT. DMR REF: KZN 30/5/1/3/2/10694 MP, DMR REF: KZN 30/5/1/3/2/10695 MP AND DMR REF: KZN 30/5/1/3/2/10696 MP

Good day,

I hope this email finds you well.

Singo Consulting (Pty) Ltd on behalf of **Mfolozi Resources (Pty) Ltd** (DMR REF: KZN 30/5/1/3/2/10694 MP), **Minzomanzi (Pty) Ltd** (DMR REF: KZN 30/5/1/3/2/10695 MP).and **Silver Oak Mining (Pty) Ltd** (DMR REF: KZN 30/5/1/3/2/10696 MP).hereby wishes to inform you that it has submitted Mining Permit applications together with an Environmental Authorizations to the KwaZulu-Natal Department of Mineral Resources (DMR) for the proposed mining establishment of **Granite/Syenite** on a portion of the Remaining Extent of the farm Qiko 17448 ET and farm 17449 ET, situated under the Magisterial District of Umzinto, KwaZulu-Natal Province.

This Notification is being given in compliance with the terms of: Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA), National Environmental Management Act, 1998 (Act No. 107 of 1998), and EIA Regulations (as amended, 07 April 2017) which requires that stakeholders must be notified of above mentioned companies' s intention to obtain a Mining Permits for the abovementioned mineral.

This invitation is being extended to you because the department that you represent might be somehow enforcing any of the Republic of South Africa's laws of which ensures; prevention of pollution & environmental degradation, promotes sustainable development & socio-economic development, or instead might be affected by mining activities. Hence you are being offered an opportunity to:

- Register as an I&AP and to respond to the environmental compliance process;
- Raise issues of concern and provide suggestions for enhanced benefits;
- Contribute to local knowledge;
- Comment on the Draft Basic Assessment Report (DBAR) & Environmental Management Program (EMP)

Singo Consulting (Pty) Ltd has been appointed as an independent Environmental Assessment Practitioner (EAP) to manage the environmental authorization process, by conducting Environmental Impact Assessment, Public Participation for the proposed project and compile an Environmental Management Plan. A Basic Assessment process has commenced, for your participation kindly fill the comment form on the last page of the attached BID and register your comments, issues or questions that you may have

about the proposed project. Should you need any clarity on the attached documents or have any queries with regards to the project, please do not hesitate to contact me on the details below.

Please find the attached Background Information Documents (BID) for detailed description of the proposed projects and timelines.

If you know anyone who might be interested in this project, kindly forward this email to that person.

Regards,



From: livhuwani@singoconsulting.co.za <livhuwani@singoconsulting.co.za > Sent: Saturday, 08 August 2020 07:53

To: 'Lynn.boucher@drdlr.gov.za' <Lynn.boucher@drdlr.gov.za>

Cc: 'Kenneth, Singo' <kenneth@singoconsulting.co.za>; 'admin@singoconsulting.co.za' <admin@singoconsulting.co.za>; 'sithabile@singoconsulting.co.za' <sithabile@singoconsulting.co.za> Subject: LAND CLAIM ENQUIRY

Good day,

I hope this email finds you well.

You are kindly receiving this email as an enquiry for any possible land claim a portion of the Remaining Extent of the farm Qiko 17448 ET and farm 17449 ET, situated under the Magisterial District of Umzinto, KwaZulu-Natal Province.

Kindly review attached BID for detailed description of proposed projectS. This is to ensure that all claimants are properly consulted and are given opportunity to:

- Register as an I&AP and to respond to the environmental compliance process;
- Raise issues of concern and provide suggestions for enhanced benefits;
- Contribute to local knowledge;
- Comment on the Draft Basic Assessment Report (DBAR) & Environmental Management Program (EMP); and
- Inform any other person / organization that they may feel should be informed about the project.

Your comments will be highly appreciated as they will assist us in developing a well-informed BAR and EMPr.

Regards,



From: livhuwani@singoconsulting.co.za <livhuwani@singoconsulting.co.za > Sent: Saturday, 08 August 2020 07:53

**To:** 'StarkeyA@dws.gov.za' <StarkeyA@dws.gov.za>; 'pillayr@dws.gov.za' <pillayr@dws.gov.za>; 'nyathid@dws.gov.za>

Cc: 'Kenneth, Singo' <kenneth@singoconsulting.co.za>; 'admin@singoconsulting.co.za' <admin@singoconsulting.co.za>; 'sithabile@singoconsulting.co.za' <sithabile@singoconsulting.co.za> Subject: MINING PERMIT APPLICATIONS AND STAKEHOLDER INVITATION TO COMMENT. DMR REF: KZN 30/5/1/3/2/10694 MP, DMR REF: KZN 30/5/1/3/2/10695 MP AND DMR REF: KZN 30/5/1/3/2/10696 MP

Good day,

I hope this email finds you well.

Singo Consulting (Pty) Ltd on behalf of **Mfolozi Resources (Pty) Ltd** (DMR REF: KZN 30/5/1/3/2/10694 MP), **Minzomanzi (Pty) Ltd** (DMR REF: KZN 30/5/1/3/2/10695 MP).and **Silver Oak Mining (Pty) Ltd** (DMR REF: KZN 30/5/1/3/2/10696 MP).hereby wishes to inform you that it has submitted Mining Permit applications together with an Environmental Authorizations to the KwaZulu-Natal Department of Mineral Resources (DMR) for the proposed mining establishment of **Granite/Syenite** on a portion of the Remaining Extent of the farm Qiko 17448 ET and farm 17449 ET, situated under the Magisterial District of Umzinto, KwaZulu-Natal Province.

This Notification is being given in compliance with the terms of: Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA), National Environmental Management Act, 1998 (Act No. 107 of 1998), and EIA Regulations (as amended, 07 April 2017) which requires that stakeholders must be notified of above mentioned companies' s intention to obtain a Mining Permits for the abovementioned mineral.

This invitation is being extended to you because the department that you represent might be somehow enforcing any of the Republic of South Africa's laws of which ensures; prevention of pollution & environmental degradation, promotes sustainable development & socio-economic development, or instead might be affected by mining activities. Hence you are being offered an opportunity to:

- Register as an I&AP and to respond to the environmental compliance process;
- Raise issues of concern and provide suggestions for enhanced benefits;
- Contribute to local knowledge;
- Comment on the Draft Basic Assessment Report (DBAR) & Environmental Management Program (EMP)

Singo Consulting (Pty) Ltd has been appointed as an independent Environmental Assessment Practitioner (EAP) to manage the environmental authorization process, by conducting Environmental Impact Assessment, Public Participation for the proposed project and compile an Environmental Management Plan. A Basic Assessment process has commenced, for your participation kindly fill the comment form on the last page of the attached BID and register your comments, issues or questions that you may have

about the proposed project. Should you need any clarity on the attached documents or have any queries with regards to the project, please do not hesitate to contact me on the details below.

Please find the attached Background Information Documents (BID) for detailed description of the proposed projects and timelines.

If you know anyone who might be interested in this project, kindly forward this email to that person.

Regards,



From: livhuwani@singoconsulting.co.za <livhuwani@singoconsulting.co.za>

Sent: Saturday, 08 August 2020 07:53

To: 'mkhizen@amafapmb.co.za' <mkhizen@amafapmb.co.za>

**Cc:** 'Kenneth, Singo' <kenneth@singoconsulting.co.za>; 'admin@singoconsulting.co.za'

<admin@singoconsulting.co.za>; 'sithabile@singoconsulting.co.za' <sithabile@singoconsulting.co.za> Subject: MINING PERMIT APPLICATIONS AND STAKEHOLDER INVITATION TO COMMENT. DMR REF: KZN 30/5/1/3/2/10694 MP, DMR REF: KZN 30/5/1/3/2/10695 MP AND DMR REF: KZN 30/5/1/3/2/10696 MP

Good day,

I hope this email finds you well.

Singo Consulting (Pty) Ltd on behalf of **Mfolozi Resources (Pty)** Ltd (DMR REF: KZN 30/5/1/3/2/10694 MP), **Minzomanzi (Pty)** Ltd (DMR REF: KZN 30/5/1/3/2/10695 MP).and Silver Oak Mining (Pty) Ltd (DMR REF: KZN 30/5/1/3/2/10696 MP).hereby wishes to inform you that it has submitted Mining Permit applications together with an Environmental Authorizations to the KwaZulu-Natal Department of Mineral Resources (DMR) for the proposed mining establishment of **Granite/Syenite** on a portion of the Remaining Extent of the farm Qiko 17448 ET and farm 17449 ET, situated under the Magisterial District of Umzinto, KwaZulu-Natal Province.

This Notification is being given in compliance with the terms of: Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA), National Environmental Management Act, 1998 (Act No. 107 of 1998), and EIA Regulations (as amended, 07 April 2017) which requires that stakeholders must be notified of above mentioned companies' s intention to obtain a Mining Permits for the abovementioned mineral.

This invitation is being extended to you because the department that you represent might be somehow enforcing any of the Republic of South Africa's laws of which ensures; prevention of pollution & environmental degradation, promotes sustainable development & socio-economic development, or instead might be affected by mining activities. Hence you are being offered an opportunity to:

- Register as an I&AP and to respond to the environmental compliance process;
- Raise issues of concern and provide suggestions for enhanced benefits;

- Contribute to local knowledge;
- Comment on the Draft Basic Assessment Report (DBAR) & Environmental Management Program (EMP)

Singo Consulting (Pty) Ltd has been appointed as an independent Environmental Assessment Practitioner (EAP) to manage the environmental authorization process, by conducting Environmental Impact Assessment, Public Participation for the proposed project and compile an Environmental Management Plan. A Basic Assessment process has commenced, for your participation kindly fill the comment form on the last page of the attached BID and register your comments, issues or questions that you may have about the proposed project. Should you need any clarity on the attached documents or have any queries with regards to the project, please do not hesitate to contact me on the details below.

Please find the attached Background Information Documents (BID) for detailed description of the proposed projects and timelines.

If you know anyone who might be interested in this project, kindly forward this email to that person.

Regards,



From: livhuwani@singoconsulting.co.za <livhuwani@singoconsulting.co.za > Sent: Saturday, 08 August 2020 07:53

To: 'Brent.Coverdale@kznwildlife.com' <Brent.Coverdale@kznwildlife.com>
 Cc: 'Kenneth, Singo' <kenneth@singoconsulting.co.za>; 'admin@singoconsulting.co.za'
 <admin@singoconsulting.co.za>; 'sithabile@singoconsulting.co.za' <sithabile@singoconsulting.co.za>
 Subject: MINING PERMIT APPLICATIONS AND STAKEHOLDER INVITATION TO COMMENT. DMR REF: KZN 30/5/1/3/2/10694 MP, DMR REF: KZN 30/5/1/3/2/10695 MP AND DMR REF: KZN 30/5/1/3/2/10696 MP

Good day,

I hope this email finds you well.

Singo Consulting (Pty) Ltd on behalf of **Mfolozi Resources (Pty)** Ltd (DMR REF: KZN 30/5/1/3/2/10694 MP), **Minzomanzi (Pty)** Ltd (DMR REF: KZN 30/5/1/3/2/10695 MP).and Silver Oak Mining (Pty) Ltd (DMR REF: KZN 30/5/1/3/2/10696 MP).hereby wishes to inform you that it has submitted Mining Permit applications together with an Environmental Authorizations to the KwaZulu-Natal Department of Mineral Resources (DMR) for the proposed mining establishment of **Granite/Syenite** on a portion of the Remaining Extent of the farm Qiko 17448 ET and farm 17449 ET, situated under the Magisterial District of Umzinto, KwaZulu-Natal Province.

This Notification is being given in compliance with the terms of: Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA), National Environmental Management Act, 1998 (Act No. 107 of 1998), and EIA Regulations (as amended, 07 April 2017) which requires that stakeholders must be notified of above mentioned companies' s intention to obtain a Mining Permits for the abovementioned mineral.

This invitation is being extended to you because the department that you represent might be somehow enforcing any of the Republic of South Africa's laws of which ensures; prevention of pollution & environmental degradation, promotes sustainable development & socio-economic development, or instead might be affected by mining activities. Hence you are being offered an opportunity to:

- Register as an I&AP and to respond to the environmental compliance process;
- Raise issues of concern and provide suggestions for enhanced benefits;
- Contribute to local knowledge;
- Comment on the Draft Basic Assessment Report (DBAR) & Environmental Management Program (EMP)

Singo Consulting (Pty) Ltd has been appointed as an independent Environmental Assessment Practitioner (EAP) to manage the environmental authorization process, by conducting Environmental Impact Assessment, Public Participation for the proposed project and compile an Environmental Management Plan. A Basic Assessment process has commenced, for your participation kindly fill the comment form on the last page of the attached BID and register your comments, issues or questions that you may have about the proposed project. Should you need any clarity on the attached documents or have any queries with regards to the project, please do not hesitate to contact me on the details below.

Please find the attached Background Information Documents (BID) for detailed description of the proposed projects and timelines.

If you know anyone who might be interested in this project, kindly forward this email to that person.

Regards,



From: livhuwani@singoconsulting.co.za <livhuwani@singoconsulting.co.za>

Sent: Saturday, 08 August 2020 07:53

To: 'advocacy@birdlife.org.za' <advocacy@birdlife.org.za>

Cc: 'Kenneth, Singo' <kenneth@singoconsulting.co.za>; 'admin@singoconsulting.co.za' <admin@singoconsulting.co.za>; 'sithabile@singoconsulting.co.za' <sithabile@singoconsulting.co.za> Subject: MINING PERMIT APPLICATIONS AND STAKEHOLDER INVITATION TO COMMENT. DMR REF: KZN 30/5/1/3/2/10694 MP, DMR REF: KZN 30/5/1/3/2/10695 MP AND DMR REF: KZN 30/5/1/3/2/10696 MP

Good day,

I hope this email finds you well.

Singo Consulting (Pty) Ltd on behalf of **Mfolozi Resources (Pty) Ltd** (DMR REF: KZN 30/5/1/3/2/10694 MP), **Minzomanzi (Pty) Ltd** (DMR REF: KZN 30/5/1/3/2/10695 MP).and **Silver Oak Mining (Pty) Ltd** (DMR REF: KZN 30/5/1/3/2/10696 MP).hereby wishes to inform you that it has submitted Mining Permit

applications together with an Environmental Authorizations to the KwaZulu-Natal Department of Mineral Resources (DMR) for the proposed mining establishment of **Granite/Syenite** on a portion of the Remaining Extent of the farm Qiko 17448 ET and farm 17449 ET, situated under the Magisterial District of Umzinto, KwaZulu-Natal Province.

This Notification is being given in compliance with the terms of: Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA), National Environmental Management Act, 1998 (Act No. 107 of 1998), and EIA Regulations (as amended, 07 April 2017) which requires that stakeholders must be notified of above mentioned companies' s intention to obtain a Mining Permits for the abovementioned mineral.

This invitation is being extended to you because the department that you represent might be somehow enforcing any of the Republic of South Africa's laws of which ensures; prevention of pollution & environmental degradation, promotes sustainable development & socio-economic development, or instead might be affected by mining activities. Hence you are being offered an opportunity to:

- Register as an I&AP and to respond to the environmental compliance process;
- Raise issues of concern and provide suggestions for enhanced benefits;
- Contribute to local knowledge;
- Comment on the Draft Basic Assessment Report (DBAR) & Environmental Management Program (EMP)

Singo Consulting (Pty) Ltd has been appointed as an independent Environmental Assessment Practitioner (EAP) to manage the environmental authorization process, by conducting Environmental Impact Assessment, Public Participation for the proposed project and compile an Environmental Management Plan. A Basic Assessment process has commenced, for your participation kindly fill the comment form on the last page of the attached BID and register your comments, issues or questions that you may have about the proposed project. Should you need any clarity on the attached documents or have any queries with regards to the project, please do not hesitate to contact me on the details below.

Please find the attached Background Information Documents (BID) for detailed description of the proposed projects and timelines.

If you know anyone who might be interested in this project, kindly forward this email to that person.

Regards,



From: livhuwani@singoconsulting.co.za <livhuwani@singoconsulting.co.za> Sent: Saturday, 08 August 2020 07:53

**Cc:** 'Kenneth, Singo' <kenneth@singoconsulting.co.za>; 'admin@singoconsulting.co.za' <admin@singoconsulting.co.za>; 'sithabile@singoconsulting.co.za' <sithabile@singoconsulting.co.za>

**Subject:** MINING PERMIT APPLICATIONS AND STAKEHOLDER INVITATION TO COMMENT. DMR REF: KZN 30/5/1/3/2/10694 MP, DMR REF: KZN 30/5/1/3/2/10695 MP

Good day,

I hope this email finds you well.

Singo Consulting (Pty) Ltd on behalf of **Mfolozi Resources (Pty)** Ltd (DMR REF: KZN 30/5/1/3/2/10694 MP), **Minzomanzi (Pty)** Ltd (DMR REF: KZN 30/5/1/3/2/10695 MP).and Silver Oak Mining (Pty) Ltd (DMR REF: KZN 30/5/1/3/2/10696 MP).hereby wishes to inform you that it has submitted Mining Permit applications together with an Environmental Authorizations to the KwaZulu-Natal Department of Mineral Resources (DMR) for the proposed mining establishment of **Granite/Syenite** on a portion of the Remaining Extent of the farm Qiko 17448 ET and farm 17449 ET, situated under the Magisterial District of Umzinto, KwaZulu-Natal Province.

This Notification is being given in compliance with the terms of: Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA), National Environmental Management Act, 1998 (Act No. 107 of 1998), and EIA Regulations (as amended, 07 April 2017) which requires that stakeholders must be notified of above mentioned companies' s intention to obtain a Mining Permits for the above-mentioned mineral.

This invitation is being extended to you because the department that you represent might be somehow enforcing any of the Republic of South Africa's laws of which ensures; prevention of pollution & environmental degradation, promotes sustainable development & socio-economic development, or instead might be affected by mining activities. Hence you are being offered an opportunity to:

- Register as an I&AP and to respond to the environmental compliance process;
- Raise issues of concern and provide suggestions for enhanced benefits;
- Contribute to local knowledge;
- Comment on the Draft Basic Assessment Report (DBAR) & Environmental Management Program (EMP)

Singo Consulting (Pty) Ltd has been appointed as an independent Environmental Assessment Practitioner (EAP) to manage the environmental authorization process, by conducting Environmental Impact Assessment, Public Participation for the proposed project and compile an Environmental Management Plan. A Basic Assessment process has commenced, for your participation kindly fill the comment form on the last page of the attached BID and register your comments, issues or questions that you may have about the proposed project. Should you need any clarity on the attached documents or have any queries with regards to the project, please do not hesitate to contact me on the details below.

Please find the attached Background Information Documents (BID) for detailed description of the proposed projects and timelines.

If you know anyone who might be interested in this project, kindly forward this email to that person.

Regards,



From: livhuwani@singoconsulting.co.za <livhuwani@singoconsulting.co.za>

Sent: Saturday, 08 August 2020 07:53

To: 'BuhleM@daff.gov.za' <BuhleM@daff.gov.za>; 'Abrams@daff.gov.za' <Abrams@daff.gov.za>
 Cc: 'Kenneth, Singo' <kenneth@singoconsulting.co.za>; 'admin@singoconsulting.co.za'
 <admin@singoconsulting.co.za>; 'sithabile@singoconsulting.co.za' <sithabile@singoconsulting.co.za>
 Subject: MINING PERMIT APPLICATIONS AND STAKEHOLDER INVITATION TO COMMENT. DMR REF: KZN 30/5/1/3/2/10694 MP, DMR REF: KZN 30/5/1/3/2/10695 MP AND DMR REF: KZN 30/5/1/3/2/10696 MP

Good day,

I hope this email finds you well.

Singo Consulting (Pty) Ltd on behalf of **Mfolozi Resources (Pty) Ltd** (DMR REF: KZN 30/5/1/3/2/10694 MP), **Minzomanzi (Pty) Ltd** (DMR REF: KZN 30/5/1/3/2/10695 MP).and **Silver Oak Mining (Pty) Ltd** (DMR REF: KZN 30/5/1/3/2/10696 MP).hereby wishes to inform you that it has submitted Mining Permit applications together with an Environmental Authorizations to the KwaZulu-Natal Department of Mineral Resources (DMR) for the proposed mining establishment of **Granite/Syenite** on a portion of the Remaining Extent of the farm Qiko 17448 ET and farm 17449 ET, situated under the Magisterial District of Umzinto, KwaZulu-Natal Province.

This Notification is being given in compliance with the terms of: Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA), National Environmental Management Act, 1998 (Act No. 107 of 1998), and EIA Regulations (as amended, 07 April 2017) which requires that stakeholders must be notified of above mentioned companies' s intention to obtain a Mining Permits for the abovementioned mineral.

This invitation is being extended to you because the department that you represent might be somehow enforcing any of the Republic of South Africa's laws of which ensures; prevention of pollution & environmental degradation, promotes sustainable development & socio-economic development, or instead might be affected by mining activities. Hence you are being offered an opportunity to:

- Register as an I&AP and to respond to the environmental compliance process;
- Raise issues of concern and provide suggestions for enhanced benefits;
- Contribute to local knowledge;
- Comment on the Draft Basic Assessment Report (DBAR) & Environmental Management Program (EMP)

Singo Consulting (Pty) Ltd has been appointed as an independent Environmental Assessment Practitioner (EAP) to manage the environmental authorization process, by conducting Environmental Impact Assessment, Public Participation for the proposed project and compile an Environmental Management Plan. A Basic Assessment process has commenced, for your participation kindly fill the comment form on the last page of the attached BID and register your comments, issues or questions that you may have about the proposed project. Should you need any clarity on the attached documents or have any queries with regards to the project, please do not hesitate to contact me on the details below.

Please find the attached Background Information Documents (BID) for detailed description of the proposed projects and timelines.

If you know anyone who might be interested in this project, kindly forward this email to that person.

Regards,



From: livhuwani@singoconsulting.co.za <livhuwani@singoconsulting.co.za>

Sent: Saturday, 08 August 2020 07:53

**To:** 'Pumla.Ncapayi@kznedtea.gov.za' <Pumla.Ncapayi@kznedtea.gov.za>;

'siza.sibande@kznedtea.gov.za' <siza.sibande@kznedtea.gov.za>; 'siphosakhe.xulu@kznedtea.gov.za' <siphosakhe.xulu@kznedtea.gov.za>

Cc: 'Kenneth, Singo' <kenneth@singoconsulting.co.za>; 'admin@singoconsulting.co.za'

<admin@singoconsulting.co.za>; 'sithabile@singoconsulting.co.za' <sithabile@singoconsulting.co.za> Subject: MINING PERMIT APPLICATIONS AND STAKEHOLDER INVITATION TO COMMENT. DMR REF: KZN 30/5/1/3/2/10694 MP, DMR REF: KZN 30/5/1/3/2/10695 MP AND DMR REF: KZN 30/5/1/3/2/10696 MP

Good day,

I hope this email finds you well.

Singo Consulting (Pty) Ltd on behalf of **Mfolozi Resources (Pty)** Ltd (DMR REF: KZN 30/5/1/3/2/10694 MP), **Minzomanzi (Pty)** Ltd (DMR REF: KZN 30/5/1/3/2/10695 MP).and **Silver Oak Mining (Pty)** Ltd (DMR REF: KZN 30/5/1/3/2/10696 MP).hereby wishes to inform you that it has submitted Mining Permit applications together with an Environmental Authorizations to the KwaZulu-Natal Department of Mineral Resources (DMR) for the proposed mining establishment of **Granite/Syenite** on a portion of the Remaining Extent of the farm Qiko 17448 ET and farm 17449 ET, situated under the Magisterial District of Umzinto, KwaZulu-Natal Province.

This Notification is being given in compliance with the terms of: Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA), National Environmental Management Act, 1998 (Act No. 107 of 1998), and EIA Regulations (as amended, 07 April 2017) which requires that stakeholders must be notified of above mentioned companies' s intention to obtain a Mining Permits for the abovementioned mineral.

This invitation is being extended to you because the department that you represent might be somehow enforcing any of the Republic of South Africa's laws of which ensures; prevention of pollution & environmental degradation, promotes sustainable development & socio-economic development, or instead might be affected by mining activities. Hence you are being offered an opportunity to:

- Register as an I&AP and to respond to the environmental compliance process;
- Raise issues of concern and provide suggestions for enhanced benefits;

- Contribute to local knowledge;
- Comment on the Draft Basic Assessment Report (DBAR) & Environmental Management Program (EMP)

Singo Consulting (Pty) Ltd has been appointed as an independent Environmental Assessment Practitioner (EAP) to manage the environmental authorization process, by conducting Environmental Impact Assessment, Public Participation for the proposed project and compile an Environmental Management Plan. A Basic Assessment process has commenced, for your participation kindly fill the comment form on the last page of the attached BID and register your comments, issues or questions that you may have about the proposed project. Should you need any clarity on the attached documents or have any queries with regards to the project, please do not hesitate to contact me on the details below.

Please find the attached Background Information Documents (BID) for detailed description of the proposed projects and timelines.

If you know anyone who might be interested in this project, kindly forward this email to that person.

Regards,



From: livhuwani@singoconsulting.co.za <livhuwani@singoconsulting.co.za>

Sent: Saturday, 08 August 2020 07:53

To: 'D.Moshe@sanbi.org.za' <D.Moshe@sanbi.org.za>

Cc: 'Kenneth, Singo' <kenneth@singoconsulting.co.za>; 'admin@singoconsulting.co.za' <admin@singoconsulting.co.za>; 'sithabile@singoconsulting.co.za' <sithabile@singoconsulting.co.za> Subject: MINING PERMIT APPLICATIONS AND STAKEHOLDER INVITATION TO COMMENT. DMR REF: KZN 30/5/1/3/2/10694 MP, DMR REF: KZN 30/5/1/3/2/10695 MP AND DMR REF: KZN 30/5/1/3/2/10696 MP

Good day,

I hope this email finds you well.

Singo Consulting (Pty) Ltd on behalf of **Mfolozi Resources (Pty)** Ltd (DMR REF: KZN 30/5/1/3/2/10694 MP), **Minzomanzi (Pty)** Ltd (DMR REF: KZN 30/5/1/3/2/10695 MP).and Silver Oak Mining (Pty) Ltd (DMR REF: KZN 30/5/1/3/2/10696 MP).hereby wishes to inform you that it has submitted Mining Permit applications together with an Environmental Authorizations to the KwaZulu-Natal Department of Mineral Resources (DMR) for the proposed mining establishment of **Granite/Syenite** on a portion of the Remaining Extent of the farm Qiko 17448 ET and farm 17449 ET, situated under the Magisterial District of Umzinto, KwaZulu-Natal Province.

This Notification is being given in compliance with the terms of: Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA), National Environmental Management Act, 1998 (Act No. 107 of 1998), and EIA Regulations (as amended, 07 April 2017) which requires that stakeholders must be notified of above mentioned companies' s intention to obtain a Mining Permits for the abovementioned mineral.

This invitation is being extended to you because the department that you represent might be somehow enforcing any of the Republic of South Africa's laws of which ensures; prevention of pollution & environmental degradation, promotes sustainable development & socio-economic development, or instead might be affected by mining activities. Hence you are being offered an opportunity to:

- Register as an I&AP and to respond to the environmental compliance process;
- Raise issues of concern and provide suggestions for enhanced benefits;
- Contribute to local knowledge;
- Comment on the Draft Basic Assessment Report (DBAR) & Environmental Management Program (EMP)

Singo Consulting (Pty) Ltd has been appointed as an independent Environmental Assessment Practitioner (EAP) to manage the environmental authorization process, by conducting Environmental Impact Assessment, Public Participation for the proposed project and compile an Environmental Management Plan. A Basic Assessment process has commenced, for your participation kindly fill the comment form on the last page of the attached BID and register your comments, issues or questions that you may have about the proposed project. Should you need any clarity on the attached documents or have any queries with regards to the project, please do not hesitate to contact me on the details below.

Please find the attached Background Information Documents (BID) for detailed description of the proposed projects and timelines.

If you know anyone who might be interested in this project, kindly forward this email to that person.

Regards,



From: livhuwani@singoconsulting.co.za <livhuwani@singoconsulting.co.za > Sent: Saturday, 08 August 2020 07:53

To: 'Thembalakhe Sibozana' <ThembalakheS@daff.gov.za>

Cc: 'Kenneth, Singo' <kenneth@singoconsulting.co.za>; 'admin@singoconsulting.co.za'

<admin@singoconsulting.co.za>; 'sithabile@singoconsulting.co.za' <sithabile@singoconsulting.co.za> Subject: MINING PERMIT APPLICATIONS AND STAKEHOLDER INVITATION TO COMMENT. DMR REF: KZN 30/5/1/3/2/10694 MP, DMR REF: KZN 30/5/1/3/2/10695 MP AND DMR REF: KZN 30/5/1/3/2/10696 MP

Good day,

I hope this email finds you well.

Singo Consulting (Pty) Ltd on behalf of **Mfolozi Resources (Pty) Ltd** (DMR REF: KZN 30/5/1/3/2/10694 MP), **Minzomanzi (Pty) Ltd** (DMR REF: KZN 30/5/1/3/2/10695 MP).and **Silver Oak Mining (Pty) Ltd** (DMR REF: KZN 30/5/1/3/2/10696 MP).hereby wishes to inform you that it has submitted Mining Permit applications together with an Environmental Authorizations to the KwaZulu-Natal Department of Mineral

Resources (DMR) for the proposed mining establishment of **Granite/Syenite** on a portion of the Remaining Extent of the farm Qiko 17448 ET and farm 17449 ET, situated under the Magisterial District of Umzinto, KwaZulu-Natal Province.

This Notification is being given in compliance with the terms of: Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA), National Environmental Management Act, 1998 (Act No. 107 of 1998), and EIA Regulations (as amended, 07 April 2017) which requires that stakeholders must be notified of above mentioned companies' s intention to obtain a Mining Permits for the abovementioned mineral.

This invitation is being extended to you because the department that you represent might be somehow enforcing any of the Republic of South Africa's laws of which ensures; prevention of pollution & environmental degradation, promotes sustainable development & socio-economic development, or instead might be affected by mining activities. Hence you are being offered an opportunity to:

- Register as an I&AP and to respond to the environmental compliance process;
- Raise issues of concern and provide suggestions for enhanced benefits;
- Contribute to local knowledge;

• Comment on the Draft Basic Assessment Report (DBAR) & Environmental Management Program (EMP)

Singo Consulting (Pty) Ltd has been appointed as an independent Environmental Assessment Practitioner (EAP) to manage the environmental authorization process, by conducting Environmental Impact Assessment, Public Participation for the proposed project and compile an Environmental Management Plan. A Basic Assessment process has commenced, for your participation kindly fill the comment form on the last page of the attached BID and register your comments, issues or questions that you may have about the proposed project. Should you need any clarity on the attached documents or have any queries with regards to the project, please do not hesitate to contact me on the details below.

Please find the attached Background Information Documents (BID) for detailed description of the proposed projects and timelines.

If you know anyone who might be interested in this project, kindly forward this email to that person.

Regards,



From: livhuwani@singoconsulting.co.za <livhuwani@singoconsulting.co.za > Sent: Saturday, 08 August 2020 07:53

To: 'ray.teichmann@transnet.net' <ray.teichmann@transnet.net>

**Cc:** 'Kenneth, Singo' <kenneth@singoconsulting.co.za>; 'admin@singoconsulting.co.za'

<admin@singoconsulting.co.za>; 'sithabile@singoconsulting.co.za' <sithabile@singoconsulting.co.za> Subject: MINING PERMIT APPLICATIONS AND STAKEHOLDER INVITATION TO COMMENT. DMR REF: KZN 30/5/1/3/2/10695 MP AND DMR REF: KZN 30/5/1/3/2/10696 MP
# Good day,

I hope this email finds you well.

Singo Consulting (Pty) Ltd on behalf of **Mfolozi Resources (Pty)** Ltd (DMR REF: KZN 30/5/1/3/2/10694 MP), **Minzomanzi (Pty)** Ltd (DMR REF: KZN 30/5/1/3/2/10695 MP).and **Silver Oak Mining (Pty)** Ltd (DMR REF: KZN 30/5/1/3/2/10696 MP).hereby wishes to inform you that it has submitted Mining Permit applications together with an Environmental Authorizations to the KwaZulu-Natal Department of Mineral Resources (DMR) for the proposed mining establishment of **Granite/Syenite** on a portion of the Remaining Extent of the farm Qiko 17448 ET and farm 17449 ET, situated under the Magisterial District of Umzinto, KwaZulu-Natal Province.

This Notification is being given in compliance with the terms of: Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA), National Environmental Management Act, 1998 (Act No. 107 of 1998), and EIA Regulations (as amended, 07 April 2017) which requires that stakeholders must be notified of above mentioned companies' s intention to obtain a Mining Permits for the abovementioned mineral.

This invitation is being extended to you because the department that you represent might be somehow enforcing any of the Republic of South Africa's laws of which ensures; prevention of pollution & environmental degradation, promotes sustainable development & socio-economic development, or instead might be affected by mining activities. Hence you are being offered an opportunity to:

- Register as an I&AP and to respond to the environmental compliance process;
- Raise issues of concern and provide suggestions for enhanced benefits;
- Contribute to local knowledge;

 Comment on the Draft Basic Assessment Report (DBAR) & Environmental Management Program (EMP)

Singo Consulting (Pty) Ltd has been appointed as an independent Environmental Assessment Practitioner (EAP) to manage the environmental authorization process, by conducting Environmental Impact Assessment, Public Participation for the proposed project and compile an Environmental Management Plan. A Basic Assessment process has commenced, for your participation kindly fill the comment form on the last page of the attached BID and register your comments, issues or questions that you may have about the proposed project. Should you need any clarity on the attached documents or have any queries with regards to the project, please do not hesitate to contact me on the details below.

Please find the attached Background Information Documents (BID) for detailed description of the proposed projects and timelines.

If you know anyone who might be interested in this project, kindly forward this email to that person.

# Regards,



From: livhuwani@singoconsulting.co.za <livhuwani@singoconsulting.co.za>
Sent: Saturday, 08 August 2020 07:53
To: 'Akani.shivambu@sanparks.org' <Akani.shivambu@sanparks.org>
Cc: 'Kenneth, Singo' <kenneth@singoconsulting.co.za>; 'admin@singoconsulting.co.za'
<admin@singoconsulting.co.za>; 'sithabile@singoconsulting.co.za' <sithabile@singoconsulting.co.za>
Subject: MINING PERMIT APPLICATIONS AND STAKEHOLDER INVITATION TO COMMENT. DMR REF: KZN 30/5/1/3/2/10694 MP, DMR REF: KZN 30/5/1/3/2/10695 MP

Good day,

I hope this email finds you well.

Singo Consulting (Pty) Ltd on behalf of **Mfolozi Resources (Pty)** Ltd (DMR REF: KZN 30/5/1/3/2/10694 MP), **Minzomanzi (Pty)** Ltd (DMR REF: KZN 30/5/1/3/2/10695 MP).and **Silver Oak Mining (Pty)** Ltd (DMR REF: KZN 30/5/1/3/2/10696 MP).hereby wishes to inform you that it has submitted Mining Permit applications together with an Environmental Authorizations to the KwaZulu-Natal Department of Mineral Resources (DMR) for the proposed mining establishment of **Granite/Syenite** on a portion of the Remaining Extent of the farm Qiko 17448 ET and farm 17449 ET, situated under the Magisterial District of Umzinto, KwaZulu-Natal Province.

This Notification is being given in compliance with the terms of: Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA), National Environmental Management Act, 1998 (Act No. 107 of 1998), and EIA Regulations (as amended, 07 April 2017) which requires that stakeholders must be notified of above mentioned companies' s intention to obtain a Mining Permits for the abovementioned mineral.

This invitation is being extended to you because the department that you represent might be somehow enforcing any of the Republic of South Africa's laws of which ensures; prevention of pollution & environmental degradation, promotes sustainable development & socio-economic development, or instead might be affected by mining activities. Hence you are being offered an opportunity to:

- Register as an I&AP and to respond to the environmental compliance process;
- Raise issues of concern and provide suggestions for enhanced benefits;
- Contribute to local knowledge;
- Comment on the Draft Basic Assessment Report (DBAR) & Environmental Management Program (EMP)

Singo Consulting (Pty) Ltd has been appointed as an independent Environmental Assessment Practitioner (EAP) to manage the environmental authorization process, by conducting Environmental Impact Assessment, Public Participation for the proposed project and compile an Environmental Management Plan. A Basic Assessment process has commenced, for your participation kindly fill the comment form on the last page of the attached BID and register your comments, issues or questions that you may have about the proposed project. Should you need any clarity on the attached documents or have any queries with regards to the project, please do not hesitate to contact me on the details below.

Please find the attached Background Information Documents (BID) for detailed description of the proposed projects and timelines.

If you know anyone who might be interested in this project, kindly forward this email to that person.

Regards,



From: livhuwani@singoconsulting.co.za <livhuwani@singoconsulting.co.za>

Sent: Tuesday, 11 August 2020 14:07

**To:** 'built.enviro@amafapmb.co.za' <built.enviro@amafapmb.co.za>; 'beadmin@amafapmb.co.za' <beadmin@amafapmb.co.za>

**Cc:** 'Kenneth, Singo' <kenneth@singoconsulting.co.za>; 'admin@singoconsulting.co.za' <admin@singoconsulting.co.za>

**Subject:** MINING PERMIT APPLICATIONS AND STAKEHOLDER INVITATION TO COMMENT. DMR REF: KZN 30/5/1/3/2/10694 MP, DMR REF: KZN 30/5/1/3/2/10695 MP

Good day,

I hope this email finds you well.

Singo Consulting (Pty) Ltd on behalf of **Mfolozi Resources (Pty) Ltd** (DMR REF: KZN 30/5/1/3/2/10694 MP), **Minzomanzi (Pty) Ltd** (DMR REF: KZN 30/5/1/3/2/10695 MP).and **Silver Oak Mining (Pty) Ltd** (DMR REF: KZN 30/5/1/3/2/10696 MP).hereby wishes to inform you that it has submitted Mining Permit applications together with an Environmental Authorizations to the KwaZulu-Natal Department of Mineral Resources (DMR) for the proposed mining establishment of **Granite/Syenite** on a portion of the Remaining Extent of the farm Qiko 17448 ET and farm 17449 ET, situated under the Magisterial District of Umzinto, KwaZulu-Natal Province.

This Notification is being given in compliance with the terms of: Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA), National Environmental Management Act, 1998 (Act No. 107 of 1998), and EIA Regulations (as amended, 07 April 2017) which requires that stakeholders must be notified of above mentioned companies' s intention to obtain a Mining Permits for the abovementioned mineral.

This invitation is being extended to you because the department that you represent might be somehow enforcing any of the Republic of South Africa's laws of which ensures; prevention of pollution & environmental degradation, promotes sustainable development & socio-economic development, or instead might be affected by mining activities. Hence you are being offered an opportunity to:

- Register as an I&AP and to respond to the environmental compliance process;
- Raise issues of concern and provide suggestions for enhanced benefits;
- Contribute to local knowledge;
- Comment on the Draft Basic Assessment Report (DBAR) & Environmental Management Program (EMP)

Singo Consulting (Pty) Ltd has been appointed as an independent Environmental Assessment Practitioner (EAP) to manage the environmental authorization process, by conducting Environmental Impact Assessment, Public Participation for the proposed project and compile an Environmental Management Plan. A Basic Assessment process has commenced, for your participation kindly fill the comment form on the last page of the attached BID and register your comments, issues or questions that you may have

about the proposed project. Should you need any clarity on the attached documents or have any queries with regards to the project, please do not hesitate to contact me on the details below.

Please find the attached Background Information Documents (BID) for detailed description of the proposed projects and timelines.

If you know anyone who might be interested in this project, kindly forward this email to that person.

Regards,



From: livhuwani@singoconsulting.co.za <livhuwani@singoconsulting.co.za>
Sent: Tuesday, 11 August 2020 14:48
To: 'maudk@umdoni.gov.za' <maudk@umdoni.gov.za>
Subject: MINING PERMIT APPLICATIONS AND STAKEHOLDER INVITATION TO COMMENT. DMR REF: KZN 30/5/1/3/2/10694 MP, DMR REF: KZN 30/5/1/3/2/10695 MP

Good day,

Please can you assist me by forwarding this email to any person under the department of planning and development, since I fail to obtain the contact details of the relevant person to consult in uMdoni local municipality regarding the proposed mining projects.

Singo Consulting (Pty) Ltd on behalf of **Mfolozi Resources (Pty) Ltd** (DMR REF: KZN 30/5/1/3/2/10694 MP), **Minzomanzi (Pty) Ltd** (DMR REF: KZN 30/5/1/3/2/10695 MP) and **Silver Oak Mining (Pty) Ltd** (DMR REF: KZN 30/5/1/3/2/10696 MP).hereby wishes to inform you that it has submitted Mining Permit applications together with an Environmental Authorizations to the KwaZulu-Natal Department of Mineral Resources (DMR) for the proposed mining establishment of Granite/Syenite on a portion of the Remaining Extent of the farm Qiko 17448 ET and farm 17449 ET, situated under the Magisterial District of Umzinto, KwaZulu-Natal Province.

This Notification is being given in compliance with the terms of: Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA), National Environmental Management Act, 1998 (Act No. 107 of 1998), and EIA Regulations (as amended, 07 April 2017) which requires that stakeholders must be notified of above mentioned companies' s intention to obtain a Mining Permits for the abovementioned mineral.

This invitation is being extended to you because the department that you represent might be somehow enforcing any of the Republic of South Africa's laws of which ensures; prevention of pollution & environmental degradation, promotes sustainable development & socio-economic development, or instead might be affected by mining activities. Hence you are being offered an opportunity to:

• Register as an I&AP and to respond to the environmental compliance process;

- Raise issues of concern and provide suggestions for enhanced benefits;
- Contribute to local knowledge;
- Comment on the Draft Basic Assessment Report (DBAR) & Environmental Management Program

(EMP)

Singo Consulting (Pty) Ltd has been appointed as an independent Environmental Assessment Practitioner (EAP) to manage the environmental authorization process, by conducting Environmental Impact Assessment, Public Participation for the proposed project and compile an Environmental Management Plan. A Basic Assessment process has commenced, for your participation kindly fill the comment form on the last page of the attached BID and register your comments, issues or questions that you may have about the proposed project. Should you need any clarity on the attached documents or have any queries with regards to the project, please do not hesitate to contact me on the details below.

Please find the attached Background Information Documents (BIDs) for detailed description of the proposed projects and timelines.

If you know anyone who might be interested in this project, kindly forward this email to that person.

Regards,



sithabile@singoconsulting.co.za; 'Nokuthula' <<u>nokuthula@singoconsulting.co.za</u>> Subject: DRAFT BAR AND EMPr- FARM QIKO 17448 ET. DMRE REF: KZN 30/5/1/3/2/10695 MP



Good day,

I hope this email finds you well.

Kindly receive the attached Draft BAR & EMPr for **Minzomanzi (Pty) Ltd** for the Mining Permit(Quarry) Application for Granite/Syenite on a Remaining Extent of the farm Qiko 17448 ET. Please review and comment on the report within 30 calendar-days, timelines of this report are highlighted on the attached BID on appendix J of this report. To provide security and confidentiality, please use the following password **SC2012**.

Should you require further assistance or clarity, please do not hesitate to contact me on the details below.

Regards



# From: livhuwani@singoconsulting.co.za livhuwani@singoconsulting.co.za Sent: Thursday, 17 September 2020 15:23

#### To: advocacy@birdlife.org.za

Cc: 'Kenneth, Singo' <<u>kenneth@singoconsulting.co.za</u>>; 'Rudzani Shonisani' <<u>rudzani@singoconsulting.co.za</u>>; <u>admin@singoconsulting.co.za</u>; <u>sithabile@singoconsulting.co.za</u>; 'Nokuthula' <<u>nokuthula@singoconsulting.co.za</u>> Subject: DRAFT BAR AND EMPr- FARM QIKO 17448 ET. DMRE REF: KZN 30/5/1/3/2/10695 MP

DBAR & EMPr.pdf

Good day,

I hope this email finds you well.

Kindly receive the attached Draft BAR & EMPr for **Minzomanzi (Pty) Ltd** for the Mining Permit(Quarry) Application for Granite/Syenite on a Remaining Extent of the farm Qiko 17448 ET. Please review and comment on the report within 30 calendar-days, timelines of this report are highlighted on the attached BID on appendix J of this report. To provide security and confidentiality, please use the following password **SC2012**.

Should you require further assistance or clarity, please do not hesitate to contact me on the details below.

#### Regards



From: <u>livhuwani@singoconsulting.co.za</u> <<u>livhuwani@singoconsulting.co.za</u>> Sent: Thursday, 17 September 2020 15:24

To: SibiyaTG@eskom.co.za

Cc: 'Kenneth, Singo' <<u>kenneth@singoconsulting.co.za</u>>; 'Rudzani Shonisani' <<u>rudzani@singoconsulting.co.za</u>>; <u>admin@singoconsulting.co.za</u>; <u>sithabile@singoconsulting.co.za</u>; 'Nokuthula' <<u>nokuthula@singoconsulting.co.za</u>>

Subject: DRAFT BAR AND EMPr- FARM QIKO 17448 ET. DMRE REF: KZN 30/5/1/3/2/10695 MP



Good day,

I hope this email finds you well.

Kindly receive the attached Draft BAR & EMPr for **Minzomanzi (Pty) Ltd** for the Mining Permit(Quarry) Application for Granite/Syenite on a Remaining Extent of the farm Qiko 17448 ET. Please review and comment on the report within 30 calendar-days, timelines of this report are highlighted on the attached BID on appendix J of this report. To provide security and confidentiality, please use the following password **SC2012**.

Should you require further assistance or clarity, please do not hesitate to contact me on the details below.

Regards



From: <a href="https://www.icitativecommunication-communicatio-communication-communication-communicatio-communicatio-communicatio-communicatio-communicatio-communicatio-communicatio-communicatio-communicatio-communicatio-communicatio-communicatio-communicatio-communicatio-communicatio-communicat

To: lindim@amafapmb.co.za

Cc: 'Kenneth, Singo' <<u>kenneth@singoconsulting.co.za</u>>; 'Rudzani Shonisani' <<u>rudzani@singoconsulting.co.za</u>>; <u>admin@singoconsulting.co.za</u>; <u>sithabile@singoconsulting.co.za</u>; 'Nokuthula' <<u>nokuthula@singoconsulting.co.za</u>>

Subject: DRAFT BAR AND EMPr- FARM QIKO 17448 ET. DMRE REF: KZN 30/5/1/3/2/10695 MP



Good day,

I hope this email finds you well.

Kindly receive the attached Draft BAR & EMPr for **Minzomanzi (Pty) Ltd** for the Mining Permit(Quarry) Application for Granite/Syenite on a Remaining Extent of the farm Qiko 17448 ET. Please review and comment on the report within 30 calendar-days, timelines of this report are highlighted on the attached BID on appendix J of this report. To provide security and confidentiality, please use the following password **SC2012**.

Should you require further assistance or clarity, please do not hesitate to contact me on the details below.

#### Regards



From: livhuwani@singoconsulting.co.za livhuwani@singoconsulting.co.za > Sent: Thursday, 17 September 2020 15:25

To: D.Moshe@sanbi.org.za

Cc: 'Kenneth, Singo' <<u>kenneth@singoconsulting.co.za</u>>; 'Rudzani Shonisani' <<u>rudzani@singoconsulting.co.za</u>>; <u>admin@singoconsulting.co.za</u>; <u>sithabile@singoconsulting.co.za</u>; 'Nokuthula' <<u>nokuthula@singoconsulting.co.za</u>>

Subject: DRAFT BAR AND EMPr- FARM QIKO 17448 ET. DMRE REF: KZN 30/5/1/3/2/10695 MP



Good day,

I hope this email finds you well.

Kindly receive the attached Draft BAR & EMPr for **Minzomanzi (Pty) Ltd** for the Mining Permit(Quarry) Application for Granite/Syenite on a Remaining Extent of the farm Qiko 17448 ET. Please review and comment on the report within 30 calendar-days, timelines of this report are highlighted on the attached BID on appendix J of this report. To provide security and confidentiality, please use the following password **SC2012**.

Should you require further assistance or clarity, please do not hesitate to contact me on the details below.

Regards



From: livhuwani@singoconsulting.co.za livhuwani@singoconsulting.co.za > Sent: Thursday, 17 September 2020 15:26

To: Nerissa.Pillay@kznwildlife.com

Cc: 'Kenneth, Singo' <<u>kenneth@singoconsulting.co.za</u>>; 'Rudzani Shonisani' <<u>rudzani@singoconsulting.co.za</u>>; <u>admin@singoconsulting.co.za</u>; <u>sithabile@singoconsulting.co.za</u>; 'Nokuthula' <<u>nokuthula@singoconsulting.co.za</u>; <u>hokuthula@singoconsulting.co.za</u>; <u></u>

Subject: DRAFT BAR AND EMPr- FARM QIKO 17448 ET. DMRE REF: KZN 30/5/1/3/2/10695 MP



Good day,

I hope this email finds you well.

Kindly receive the attached Draft BAR & EMPr for **Minzomanzi (Pty) Ltd** for the Mining Permit(Quarry) Application for Granite/Syenite on a Remaining Extent of the farm Qiko 17448 ET. Please review and comment on the report within 30 calendar-days, timelines of this report are highlighted on the attached BID on appendix J of this report. To provide security and confidentiality, please use the following password **SC2012**.

Should you require further assistance or clarity, please do not hesitate to contact me on the details below.



From: Ashantia Nerissa Pillay <<u>Nerissa.Pillay@kznwildlife.com</u>> Sent: Thursday, 17 September 2020 15:31

To: livhuwani@singoconsulting.co.za

Cc: 'Kenneth, Singo' <<u>kenneth@singoconsulting.co.za</u>>; 'Rudzani Shonisani' <<u>rudzani@singoconsulting.co.za</u>>; <u>admin@singoconsulting.co.za</u>;

sithabile@singoconsulting.co.za; 'Nokuthula' <<u>nokuthula@singoconsulting.co.za</u>>

Subject: RE: DRAFT BAR AND EMPr- FARM QIKO 17448 ET. DMRE REF: KZN 30/5/1/3/2/10695 MP

Dear Livhuwani,

Thank you for your email.

Please note that we are still constrained with our email systems and downloading-capacity for receiving applications in this manner. We are requesting that EAPs send the application on CD or flash stick or a hardcopy to our Head Office Registry at Queen Elizabeth Park, together with a covering letter for our files as we need to keep a hardcopy reference to the application. In this way we are able to distribute the applications to Ezemvelo staff to review from their home offices. We thank you in advance for sending a hardcopy or CD to QEP for us to review. Please note that the deadline for the application will be calculated as from the receive date of the hardcopy or CD/flash stick.

We appreciate your ongoing co-operation as we navigate these changing times. Should you require any clarity or assistance, please do not hesitate to contact me via email.

A. Nerissa Pillay Scientific Technician Conservation Planning: IEM Ezemvelo KZN Wildlife 1 Peter Brown Drive P.O. BOX 13053 Cascades 3200 Telephone: (033) 845 1917 Fax: (033) 845 1499 email: <u>nerissa.pillay@kznwildlife.com</u>



Conservation, Partnerships & Ecotourism

From: livhuwani@singoconsulting.co.za <livhuwani@singoconsulting.co.za> Sent: Thursday, 17 September 2020 15:26 To: siphosakhe.xulu@kznedtea.gov.za Cc: 'kenneth, Singo' <kenneth@singoconsulting.co.za>; 'Rudzani Shonisani' <rudzani@singoconsulting.co.za>; admin@singoconsulting.co.za; sithabile@singoconsulting.co.za; 'Nokuthula' <nokuthula@singoconsulting.co.za> Subject: DRAFT BAR AND EMPr- FARM QIKO 17448 ET. DMRE REF: KZN 30/5/1/3/2/10695 MP



Good day,

I hope this email finds you well.

Kindly receive the attached Draft BAR & EMPr for **Minzomanzi (Pty) Ltd** for the Mining Permit(Quarry) Application for Granite/Syenite on a Remaining Extent of the farm Qiko 17448 ET. Please review and comment on the report within 30 calendar-days, timelines of this report are highlighted on the attached BID on appendix J of this report. To provide security and confidentiality, please use the following password **SC2012**.

Should you require further assistance or clarity, please do not hesitate to contact me on the details below.



From: livhuwani@singoconsulting.co.za <livhuwani@singoconsulting.co.za> Sent: Thursday, 17 September 2020 15:28

To: pillayr@dws.gov.za

Cc: 'Kenneth, Singo' <<u>kenneth@singoconsulting.co.za</u>>; 'Rudzani Shonisani' <<u>rudzani@singoconsulting.co.za</u>>; <u>admin@singoconsulting.co.za</u>>; <u>admin@singoconsulting.co.za</u>>

Subject: DRAFT BAR AND EMPr- FARM QIKO 17448 ET. DMRE REF: KZN 30/5/1/3/2/10695 MP



Good day,

I hope this email finds you well.

Kindly receive the attached Draft BAR & EMPr for **Minzomanzi (Pty) Ltd** for the Mining Permit(Quarry) Application for Granite/Syenite on a Remaining Extent of the farm Qiko 17448 ET. Please review and comment on the report within 30 calendar-days, timelines of this report are highlighted on the attached BID on appendix J of this report. To provide security and confidentiality, please use the following password **SC2012**.

Should you require further assistance or clarity, please do not hesitate to contact me on the details below.



# Appendix D: Landowner Responses

From: siya.masinga@yahoo.com <siya.masinga@yahoo.com>
Sent: Tuesday, 08 September 2020 17:26
To: livhuwani@singoconsulting.co.za
Cc: beleroy@yahoo.com; Sbonga Bele <sbonga.bele@gmail.com>; 'Godola Co-op' <jdbele@yahoo.com>
Subject: Mining Pemit Comments & Concerns

Dear Sir

Herewith please find attached,

Please note that a signed copy will follow in due course.

Kindly Regards,

# OFFICE OF: INKOSI PHIKUBUXOKI BELE

MINUTE



QIKO TRADITIONAL COUNCIL

P.O. BOX 49, SCOTTBURGH 41 80 • WARD 2, UMDONI MUNICIPALITY, UMZINTO 4200 Ref No. E rquiries: E mail: beleroy@yahoo.com

Att: Mr Livhuwani Sigwadi Office No. 16 First Floor, Corridor Hill Crossing 09 Langa Crescent Corridor Hill Emalahleni 1035 Date: 2020-09-07

Dear Sir

We as KwaQiko TC would like to voice our comments & concerns. We write as one of interested and affected parties, we would like to register our concems with Mr Livhuwani about the Mining Permit as per the advert. This request for Minzomanzi (Pty) Ltd DMR Ref: KZN30/5/1/3/2/10695MP, Umfolozi Resources (Pty) Ltd DMR Ref: KZN30/5/1/3/2/10696MP, Silver Oak Mining (Pty) Ltd DMR Ref: KZN30/5/1/3/2/10696MP.

- We as the Qiko TC would like to indicate that there was no consultative process for local and affected community.
- Our culture and heritage will be hugely disturbed and as a community leadership are very interested in knowing and ensuring a vast community participation during mining operation.
- We are privilege in understanding the cultural community values and believes, thus this
  process of Mining should be preceded by community engagements as this is tribal land.
- 4. We the Qiko TC are coming from underprivileged backgrounds and social upliftment can never be compromised. Majority of our people work in cities and were not available to discuss the advert. They would be available at the end of September 2020.
- 5. Giving an opportunity to other local interest groupings, discussion about a possibility of any co-existence will be possible if all stakeholders are involved. The determining common denominator would be an intensive community participation and social upliftment strategy which should be share and understood by the affected parties.
- Cultural heritage preservation in a form of photo album before any the mining should been part of the process keeping the heritage of our affected land.

We would like to request the extension of the advert in order to participate meaningfully in the consultative process to the 2nd October 2020.

Kindly Regards,

Bele

Inkosi

From: livhuwani@singoconsulting.co.za <livhuwani@singoconsulting.co.za>
Sent: Wednesday, 09 September 2020 12:44
To: 'siya.masinga@yahoo.com' <siya.masinga@yahoo.com>
Cc: 'Kenneth, Singo' <kenneth@singoconsulting.co.za>; 'Rudzani Shonisani'
<rudzani@singoconsulting.co.za>; 'beleroy@yahoo.com' <beleroy@yahoo.com>; 'Sbonga Bele'
<sbonga.bele@gmail.com>; ''Godola Co-op' <jdbele@yahoo.com>' <'Godola Co-op'</p>
<jdbele@yahoo.com>>
Subject: Mining Pemit Comments & Concerns

Afternoon Siya,

I hope you still well.

Kindly note that we received your comments and we really appreciate your time, your concern regarding the proposed projects are considered.

I will more appreciate if you choose a date(end of September 2020 as you suggested) for a proper meeting with the landowner and community.

I will wait for the date of the meeting.

Regards,



# **Appendix E: Stakeholders Responses**

From: PMB ResourceCentre <PMBResourceCentre@Dalrrd.gov.za>
Sent: Wednesday, 26 August 2020 13:39
To: livhuwani@singoconsulting.co.za
Cc: Karen Moodley <KarenM@daff.gov.za>
Subject: Comments from DEFF

Good day Livhuwani Sigwadi

Kindly find the attached comments.

Should you require any further information, please do not hesitate to contact Karen on:

Tel. 033 392 7722 Cell: 082 881 2250 Email: <u>KarenM@daff.gov.za</u>

Regards,

## PMB Resource Centre



# agriculture, forestry & fisheries

Department: Agriculture, Forestry and Fisheries REPUBLIC OF SOUTH AFRICA Sub Directorate: Forestry Regulations & Support

Department of Agriculture, Forestry and Fisheries

 Tel:
 033 392 7700

 Fax:
 033 342 8783

 Web:
 www.daff.gov.za

 E-mail:
 PMBResourceCentre@daff.gov.za

From: livhuwani@singoconsulting.co.za <livhuwani@singoconsulting.co.za>
Sent: Friday, 04 September 2020 09:39
To: 'karenM@daff.gov.za' <karenM@daff.gov.za>
Cc: 'Kenneth, Singo' <kenneth@singoconsulting.co.za>; 'admin@singoconsulting.co.za'
<admin@singoconsulting.co.za>; 'Rudzani Shonisani' <rudzani@singoconsulting.co.za>
Subject: Comments from DEFF

Good morning,

Please note that your comments and request are well received, a vegetation study of the proposed area will be done and submitted to you with a DBAR.

Regards,



# Appendix F: Proof of Draft BAR Submission

# 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 significance of impacts.

Type of impact		Likelihood	Significance
Site establishment/ construction phase	Duration: Plar	nning phase	
Site establishment			
Visual intrusion associated with mining area establish	nment	Possible	Medium concern
Dust nuisance caused by soil disturbance		Low possibility	Low concern
Noise nuisance caused by machinery stripping and topsoil	stockpiling	Low possibility	Low concern
Infestation of topsoil heaps by weeds and invader p	plants	Low possibility	Low concern
Loss of topsoil due to incorrect storm water manage	ement	Low possibility	Low concern
Area contamination with hydrocarbon/hazardous w	vaste	Low possibility	Low concern
Operational phase	Duration: Ope	erational phase;	minimum of 3 years
Blasting			
Health and safety risk posed by blasting activities		Low possibility	Low concern
Dust nuisance caused by blasting activities		Definite	Low-medium concern
Noise nuisance caused by blasting activities		Definite	Low-medium concern
Excavation			
Visual intrusion associated with the excavation activ	vities	Definite	Medium concern
Dust nuisance due to excavation activities		Low possibility	Low concern
Noise nuisance generated by excavation equipment	nt	Low possibility	Low-medium concern
Unsafe working conditions for employees		Low possibility	Low concern
Negative impact on the fauna and flora of the area	ג	Low possibility	Low concern
Area contamination with hydrocarbon/hazardous w	vaste	Low possibility	Low concern
Weed and invader plant infestation of the area		Low possibility	Low concern

Crushing		
Dust nuisance due to the crushing activities	Possible	Low-medium concern
Noise nuisance generated by the crushing activities	Possible	Low-medium concern
Area contamination with hydrocarbon/hazardous waste	Low possibility	Low-medium concern
Stockpiling and transporting	·	
Visual intrusion associated with the stockpiled material and vehicles transporting the material	Low possibility	Low-medium concern
Loss of material due to ineffective storm water handling	Low possibility	Low concern
Weed/invader plant infestation of area due to soil disturbance	Low possibility	Low concern
Dust nuisance from stockpiled material and vehicles transporting the material	Low possibility	Low concern
Degradation of access roads	Possible	Low-medium concern
Noise nuisance caused by vehicles	Low possibility	Low concern
Area contamination with hydrocarbon/hazardous waste	Low possibility	Low concern
Decommissioning phase Duration: Dec	commissioning pl	nase
Decommissioning phaseDuration: DecSloping and landscaping during rehabilitation	commissioning pl	nase
Decommissioning phase     Duration: Decommission       Sloping and landscaping during rehabilitation     Soil erosion	commissioning pl Low possibility	nase Low concern
Decommissioning phaseDuration: DecommissionSloping and landscaping during rehabilitationSoil erosionHealth and safety risk posed by un-sloped areas	Low possibility	Low concern
Decommissioning phaseDuration: DecommissionSloping and landscaping during rehabilitationSoil erosionSoil erosionHealth and safety risk posed by un-sloped areasDust nuisance caused by sloping and landscaping	Low possibility Low possibility Low possibility Low possibility	Low concern Low concern Low concern
Decommissioning phaseDuration: DecompositionSloping and landscaping during rehabilitationSoil erosionSoil erosionHealth and safety risk posed by un-sloped areasDust nuisance caused by sloping and landscapingNoise nuisance caused by machinery	Low possibility Low possibility Low possibility Low possibility Low possibility	Low concern Low concern Low concern Low concern Low concern
Decommissioning phaseDuration: DecompositionSloping and landscaping during rehabilitationSoil erosionSoil erosionImage: state	Low possibility Low possibility Low possibility Low possibility Low possibility Low possibility	Low concern Low concern Low concern Low concern Low concern Low concern
Decommissioning phaseDuration: DecompositionSloping and landscaping during rehabilitationSoil erosionHealth and safety risk posed by un-sloped areasDust nuisance caused by sloping and landscapingNoise nuisance caused by machineryArea contamination with hydrocarbon/hazardous wasteReplacing of topsoil and rehabilitation of disturbed area	Low possibility Low possibility Low possibility Low possibility Low possibility Low possibility	Low concern Low concern Low concern Low concern Low concern
Decommissioning phaseDuration: DecommissionSloping and landscaping during rehabilitationSoil erosionHealth and safety risk posed by un-sloped areasDust nuisance caused by sloping and landscapingNoise nuisance caused by machineryArea contamination with hydrocarbon/hazardous wasteReplacing of topsoil and rehabilitation of disturbed areaLoss of reinstated topsoil due to absence of vegetation	Low possibility Low possibility Low possibility Low possibility Low possibility Low possibility	Low concern Low concern Low concern Low concern Low concern Low concern
Decommissioning phaseDuration: DecommissionSloping and landscaping during rehabilitationSoil erosionSoil erosionItealth and safety risk posed by un-sloped areasHealth and safety risk posed by un-sloped areasItealth and safety risk posed by un-sloped areasDust nuisance caused by sloping and landscapingItealth area contamination with hydrocarbon/hazardous wasteReplacing of topsoil and rehabilitation of disturbed areaLoss of reinstated topsoil due to absence of vegetationInfestation of the area by weed/invader plants	Low possibility Low possibility Low possibility Low possibility Low possibility Low possibility Low possibility Low possibility	Low concern Low concern Low concern Low concern Low concern Low concern Low concern

# Appendix H: Financial and Technical Competence

# Appendix I: Site Notice and Site Assessment Pictures



![](_page_199_Figure_0.jpeg)

![](_page_200_Picture_0.jpeg)

![](_page_201_Picture_0.jpeg)

![](_page_202_Picture_0.jpeg)

![](_page_203_Picture_0.jpeg)

![](_page_204_Picture_0.jpeg)

Page 180 of 228

# Appendix J: Background Information Document

# **BACKGROUND INFORMATION DOCUMENT**

Remaining Extent of the farms Qiko 17448 ET and farm 17449 ET. DMR REF: KZN  $30/5/1/3/2/10695\ \text{MP}$ 

UMZINTO MAGISTERIAL DISTRICT, KWAZULU-NATAL

Prepared by:

# Prepared for: Minzomanzi (Pty) Ltd

#### INTRODUCTION AND THE PURPOSE OF THIS DOCUMENT

#### **PROJECT DESCRIPTION**

Singo Consulting (Pty) Ltd has been appointed as an independent Environmental Consultant by Minzomanzi (Pty) Ltd to conduct Environmental Impact Assessment (EIA), Compile an Environmental Management Plan (EMP) and undertake Public Participation Process (PPP). This is done for processes of acquiring environmental authorization for the proposed Mining Permit application on Remaining Extent of the farms Qiko 17448 ET and farm 17449 ET, in the Magisterial District of Umzinto, KwaZulu-Natal Province.

The Purpose of this Background Information Document (BID) is to provide a perfunctory description of the project and outline EIA processes to be followed and contributions from Interested and Affected Parties (IAPs) on the issues related to the project in question, allowing comments and concerns to be raised.

Results of the EIA, both negative and positive will be submitted and made available to the relevant Departments such as the Department of Mineral Resources and if requested, Environmental Affairs, Water and Sanitation, Landowners and other interested stakeholders.

This Background Information Document therefore requests and invite IAPs to comment on the environmental, physical, Social and economic impacts associated with the proposed Mining Activities. Be assured that your comments are of great value as they ensure that relevant issues are taken into consideration. Attached at the end of this document is a registration from, kindly complete it and send it back to **project EAP** through given means of communication also attached on the comment form. Mining Permit Application has been submitted for the extracting of **Granite/Syenite** on the property mentioned above. This Mining Area, as seen in figure 1 below, is situated approximately 3,32 km South east of eNtsongeni, approximately 4.10 km East of eTshenkombo, and pproximately 2.40 km North of Amahwaqa.

Mining activities will be undertaken over a period of two (2) years. These project will entail an open cast method of excavation. The mine design will be developed according to the dimension of the mineral applied deposit within the project area, but overall mining activities will be limited to an area of 5 Ha as per mining permit requirements. The top soil will be stockpiled elsewhere on site preferably next to the permit boundary and will be used during rehabilitation period. Once a box cut has been made, the overburden and mineral resources where necessary will be loosened by blasting. The loosened material will then be loaded onto trucks by excavators. A haul road will be situated at the side of the pit, forming a ramp up which trucks can drive, carrying ore and waste rock. All the activities will be guided by the project's EMP such that the project does not impact the environment negatively.

#### REGULATORY FRAMEWORK

Therefore, EIA process to be undertaken will be conducted in accordance with the National Environmental Management Act (Act 38 of 1998) and Environmental Impact Assessment regulations as amended (April 2017).

The activity is to extract the existence and occurrence of **Granite/Syenite** therefore, this will be conducted in accordance with Mineral and Petroleum Resources Development Act, (Act 28 of 2002). Other regulatory guidelines to be followed include: National Water Act, 1998 (Act 36 of 1998), National Air Quality Standards (GN 1210: 2009) and National Dust Control Regulations (GN 275: 2017).

![](_page_206_Figure_0.jpeg)

Figure 1: Locality map of the proposed project

# BASIC AND ENVIRONMENTAL IMPACT ASSESSMENT PROCESSES

These are planning and decision-making tools used in identifying potential environmental, economic and social consequences of a proposed activity prior the commencement of the activity.

These together with the public issues and concerns are to be identified sufficiently early so that they can be assessed and incorporated into the final reports when/if necessary.

These tools are regarded crucial because they are utilized in order to demonstrate to the relevant stakeholders about the potential impacts, which in turn leads to the Mining application process being a success or declined.

## PUBLIC PARTICIPATION PROCESS

Public Participation remains a cornerstone of the Environmental Impact Assessment process. It ensures provision of relevant and enough information with openness and transparency. Public Participation Process presents to IAPs, an opportunity to understand what the project is about, and affords them an opportunity to make valuable contributions towards the EIA process IAP can be any person, group of persons or organization interested in or affected by the proposed activity, and any organ of state that may have jurisdiction over any aspect of the activity.

The key objective of PPP is to offer the IAPs with an opportunity to comment and provide valuable inputs during the planning phase of the project.

For this specific proposed project, IAPs will be given a period of 30 days to comment and raise issues/concerns with regards to this BID.

As part of the EIA process, more especially the Public Participation Process for this proposed projects, Interested & Affected Parties (I&APs) are invited to register and kindly submit any comments or concerns to reach Mr Livhuwani Sigwadi by no later than Tuesday, the 8<sup>th</sup> of September 2020 using the contact details provided below. The public is also invited to review and comment on the draft Basic Assessment report & EMPr. The Basic Assessment report & EMPr. The Basic Assessment report & EMPr will be available for review for 30 days calendar period from 09 September 2020 to 09 October 2020.

![](_page_208_Picture_0.jpeg)

Office No: 16, First Floor (South Block)
Corridor Hill Crossing, 09 Langa Crescent,
Corridor Hill, Emalahleni
Tel: +27 76 652 9062/ +27 13 692 0041 Fax: +27 86 5144 103
Email: livhuwani@singoconsulting.co.za
: admin@sinaoconsultina.co.za

# REGISTRATION & COMMENT SHEET

## Attention: Livhuwani Sigwadi

Email: livhuwani@singoconsulting.co.za

Title		Name			Surne	ame		
Compan	y	1				I		
Designati	on							
Address							_	
Tel No.					Fa	x No.		
E-mail					Ce	ell No.		
I would like to receive my notifications be (mark with "X"):				Post		E-mail:		
							Fax:	
Please in	dicate	e why you	would have an int	erest in the	above	e-men	tioned pro	ject.
Please provide your comments and questions here:								
Plansa fa	ol frod	e to attac	h a separate docu	ment				
Please ac	ld an	vnerson	ou think may be in	terested ar	nd affe	octed (	oarties:	
Full name		y person		Con		/	Sumes.	
Address								
E-mail				Con	tact			
				No.				

# Appendix K: CV and Experience Record of EAP

# NDINANNYI KENNETH SINGO

![](_page_209_Picture_2.jpeg)

# Singo Consulting (Pty) Ltd

Private Bag X 7214, Postnet Suite 125, Witbank 1035 Office No. 16, First Floor (South Block), Corridor Hill Crossing, 09 Langa Crescent, Corridor Hill, eMalahleni, Witbank, 1040. Tel No.: 072-081-6682/078-2727-839 Fax No.: 086-514-4103 E-mail address: <u>kenneth@singoconsulting.co.za</u>

#### TERTIARY EDUCATION

Qualification	:	Ph.D. (Geology, Applied Environmental Mineralogy & Geochemistry)
Institution	:	University of Johannesburg
Year Obtained	:	Results issued, graduation date to be confirmed.
PhD Project Title	:	In Search of the Possible Economic Potential, through Conceptual Study,
		on Reclamation of Defunct Mine Residue areas for Development Purposes:
		Case study of Musina Copper Mine, Giyani Louis Moore Gold Mine and
		Zwigodini Nyala Magnesite Mine, South Africa
Qualification	:	M.Sc. (Environmental Management)
Institution	:	University of South Africa
Year Obtained	:	2013
Masters Project Title	:	An Assessment of Heavy Metal Pollution in the Vicinity of the Defunct
		Copper Mine Dumps in Musina, South Africa
Qualification	1	B.Sc. (Hons) Mining & Environmental Geology
Institution	:	University of Venda
Year Obtained	:	2008
Honours Project Title	:	Structural Control on Kimberlite Pipes: A Case Study of Venetia Kimberlite
		Pipe-K19, Venetia Open Cast Diamond Mine, South Africa
WORK EXPERIENCE		
Company	822	Singo Consulting
Position	:	Director/Principal Consultant
Duration	:	9 August 2012-TODATE
Key Focus Area	:	Environmental Projects

Technical work:

- .

- Environmental Impact Assessment Environmental Management Plans Social and Community Development Plans Geological (Exploration, Resource Estimation and Competency Report) Hydrological and Hydrology (Surface and Groundwater Studies) Soil Science (Soil profiling, Modelling and Soil Chemistry) Environmental Control Office Coetoethical (Soil and Root)

- Geotechnical (Soil and Rock) Mining Feasibility Studies

#### TRAINING COURSES

> 17-19 April 2012: GSSA Drilling Methods & Techniques in Resource Exploration

- > 13-14 September 2012: GSSA Exploration Drill Site Safety
- > 3 May 2013: SHE Representative Training
- > 6-10 May 2013: Witwatersrand University, A3 SHE Risk Assessment Management
- > 22 July 2013: AATCGS Geophysics 101: Basics of Geophysics and Its Application in Coal
- > 31 July 2013: Mentorship Training
- > 14 April 2014: A2 Safety for Managers
- > 13 May 26 June: Lump Ore Beneficiation (Basic Coal Preparation): Metallurgy G101-105, Colliery Training College, Witbank
- > 14-17 July 2014: Safety Leadership Programme
- > 6-8 Oct 2014: Understanding Coal Quality, ALS Witbank Training
- > 3-7 Nov 2014: Foundation for Leadership Programme
- > 3 Feb 2015: 4X4 Defensive Driving Training
- 1 May 2015: Assertiveness Awareness and Training
- > 21-22 July 2016: Time Management Training

#### SYMPOSIUMS

- > 29 July 2013: Presenter: 4th Prof Humphrey Memorial Post-Graduate Symposium, University of South Africa
- 11 November 2015: Presenter: Wits GSSA REI Colloquium: Economic Potential and Viability of reclaiming mine dumps in the Limpopo Provice.

#### CONFERENCES

#### LIST OF CONFERENCE PROCEEDINGS AND SYMPOSIUMS:

- > 26-28 November 2012: Aminergy Acid Mine Drainage South Africa Conference
- > 10-12 March 2014: Presenter: SAICE 5th International Mining and Industrial Waste Management Conference
- > 29 Sept-3 Oct 2014: 9th International Mine Closure Conference, Sandton
- > 16-17 March 2015: Workshop: South Africa Mining-Related Landscape\* Rehabilitation Status Quo: Identifying Work Required to Close Current Knowledge gaps, WRC, Pretoria.
- > 8-11 Sept 2015: Land Rehabilitation Society of Southern Africa (LaRSSA): Mine rehab and biodiversity.
- N.K. Singo\*, 2015. Wits GSSA REI Colloquium: Economic Potential and Viability of reclaiming mine dumps in the Limpopo Province. 11th November 2015, Witwatersrand University, Johannesburg, South Africa.
- N.K. Singo\* and J.D. Kramers, 2016. Uranium as a potential health hazard as well as (even) an economic asset in the Louis Moore tailings dump, near Giyani, Limpopo Province. In symposium Proceedings; 6th Mintek Analytical Symposium "The Environment", Mintek G4, Randburg, Johannesburg, South Africa, Friday 21st October 2016.
- N.K. Singo\* and J.D. Kramers, 2017. Chrysofile (white asbestos) occurrence in the Nyala Magnesite Mine dumps and the soils around them, and its health implications to the community of Zwigodini Village, Limpopo Province. 5th Annual Conference. 1-4 August 2017, Resilient Landscapes in a Changing Climate.
- N.K. Singo\* and J.D. Kramers, 2017. Unlocking the potential economic benefit of a tailings dump through resource modelling and estimation: SHE (safety, health, and environmental) issues and solutions. MineSafe 2017 Conference, Striving for zero harm (driving excellence through compliance), Emperors Palace, Hotel Casino Convention Resort, Johannesburg, 30–31 August 2017, The Southern African Institute of Mining and Metallurgy (SAIMM).

#### List of publications:

- N.K. Singo, and J.D., Kramers, 2017. Geochemical and Mineralogical Characterization of two low grade stockpiles (mine residue deposits): acid mine drainage vs neutral-alkaline mine drainage perspectives. A case study of the Musina (Copper) and Nyala (Magnesium) mines, South Africa.
- N.K. Singo, and J.D., Kramers, 2017. Preferred tailings retreatment approach to unlock value and create environmental sustainability of the Louis Moore tailings dump, near Givani, South Africa.
- N.K. Singo, and J.D., Kramers, 2017. Copper tailings retreatment to deliver economic value with concurrent rehabilitation at the Musina mine, South Africa.

Client Name	Contract Start date (dd/mm/yyyy)	Contract End date (dd/mm/yyyy)	*Contact Person	Contact Person's phone number(s) and Email Address
Mashavane Quarry	03-02-2015	12-06-2018	Mr P Ngwenya	Pat.nawenya@amail.com 072 914 3508
CoalX-Carolina	02-04-2018	Ongoing	Rian Telma	H Mduza <u>bramduza@icloud.com</u> Riaan CoalX riaan@coalx.co.za
CoalX-Balmoral	28-02-2018	Ongoing	Rian Telma	H Mduza <u>bramduza@icloud.com</u> Riaan CoalX <riaan@coalx.co.za></riaan@coalx.co.za>
Malahleni Mining	6-6-2018	Ongoing	Roelf Depreez	roelf_dupreez@yahoo.com 081 273 7785
New Venture Mining	23-4-2017	Ongoing	Mr. GB Simelane	076 246 3677 simelanegb@gmail.com, simelane@jaments.co.za
Veralli Mineral	1-8-2017	Ongoing	Mr. Rambauli TJ	<u>irambauli@vahoo.com</u> 073 501 2819
Benicon Mining	1-10-2018	Ongoing	Mr Gavin Kotzen	ak@karoup.co.za 083 626 4555 017 647 1047

![](_page_212_Picture_0.jpeg)

IAIAsa Secretariat Tel +27(0)11 655 7183 Fax 086 662 9849 Address: 43 Birchwood Court, Montrose Street, Vorna Valley, Midrand, 1618 Postal address: PO Box 11666, Vorna Valley, 1686 Email: operations@iaiasa.co.za Website: www.iaiasa.co.za

# IAIAsa Confirmation of Membership: 2018/2020 Kenneth Singo Membership Number: 6091

27 November 2018

#### TO WHOM IT MAY CONCERN

Mr Kenneth Singo, Singo Consulting (Pty) Ltd (IAIAsa membership Number 6091) is a paid-up full member in good standing of the South African Affiliate of the International Association for Impact Assessment and has been a member of IAIAsa since 1 March 2018.

This membership is valid from 1 March 2018 to 28 February 2020.

IAIAsa is a voluntary organisation and is not a statutory body regulating the profession. Its members are however expected to abide by the organisation's code of ethics which is available on our website.

Any enquiries regarding this membership may be directed to the Secretariat at the above contact details.

Yours Sincerely

Holynpyt

Robyn Luyt IAIAsa President 2018/2019

President: R Luyt, Past President: J Tooley, President Elect & Treasurer: S Nkosi, Secretary: T Breetzke. Members: A Adams, N.Baloyi, N Lushozi, S O'Beirne, J Richardson, Branch Chairs: M de Villiers, L Kruger, Y Martin, N Nkoe, P Radford, D Sanderson.

![](_page_213_Picture_0.jpeg)

Scan this code to view online version of this certificate

# SIGWADI LIVHUWANI

# CONTACT DETAILS

<b>Contact number:</b> 076 6529 062	<b>Tel work:</b> 013 692 0041	Email address: <u>chipilinge@gmail.com</u>
<b>Physical address</b> Tshaulu Masiwane Stand no: 161 0987	<b>Postal addre</b> P O Box 640 Tshaulu 0987	255
Alternative contact person Alternative contact number	: Sigwadi Thus r: 072 9776 669	eni )

# PERSONAL DETAILS

ID Number	:	860131 5725 082
Nationality	:	South African
Race	:	African
Gender	:	Male
Driver's license	:	Code 10 (C1)
Home language	:	Tshivenda
Other languages	:	English; Sotho

# EDUCATION DETAILS

## TERTIARY

Institution attended	:	University of Venda
Years attended	:	From: 2007 To: 2012
Highest qualification attain	ned :	Hons Degree in Environmental Management
Major subjects	:	Environmental Resource Management, Geography, Environmental Impact Assessment & modeling, Planning and Environmental Law
Research Topic	:	Improve Biological Aspects of Soil Quality by Using Cover Crops

## SECONDARY

High school name	:	Tondalushaka Secondary School
Highest grade passed	:	Grade 12
Year passed	:	2006
Subjects	:	Tshivenda, English, Biology, Geography, Mathematics, PhysicalScience

## PROFESSIONAL/SHORT COURSES/OCCUPATION SPECIFIC TRAINING

	YEAR COMPLETED	INSTITUTION	DURATION	COURSE NAME
1	2010	Lapalala Wildness School	1 week	Conservation Courses
2	2012	Masana Social Training & Development	1week	Safety Health & Environment
3	2014	Duma Nathi Africa	1 week	Communication and Leadership
4	2015	New Horizons	1 week	Computer Literacy
5	2015	ESRI South Africa	1 week	Map work with GIS
6	2015	NCC	1 week	Project Management

# EMPLOYMENT STATUS

Current Employement	: Singo Consulting Pty Ltd
Location	: Mpumalanga(Witbank)
Position	: Environmental Consultant

# Duties

- · Perform environmental guidance to client for new projects
- · Perform a reseach and analyses to understand environmental effects
- · Conduct site inspection for environmental safety compliance
- · Reseach and recommand new process to reduce environmental damages
- Attending stakeholders meeting
- · Compile BAR and EMPr for the clients
- · Environmental Control Officer in an operating projects

Previous Employement	:	Limpopo Economic Development, Environment and Tourism
Location	:	Limpopo (Musina Nature Reserve)
Period employed	:	From: 01/05/2013To: 31/03/2017
Position	:	Nature Conservator
Reason for leaving	:	End of Contract

## Duties

 Law Enforcement & Compliance: Patrol and investigate illegal activities, removal of snares and ambush. Access control to the visitors and staff members within the nature reserve.
- **Biodiversity Monitoring and Management**: Conduct veld management- identification, weeds and alien invasive plants control, bush encroachment control, management of fire within the nature reserve and combating of soil erosion within the nature reserve.
- Game Management: Conduct fauna management programs- capturing, hunting and culling monitoring, water distribution for the games to water points and game feeding during dry seasons, conduct game census within the nature reserve.
- Environmental Education and other Environmental issues: visit local communities and local Schools educating them on Nature conservation, Biodiversity, Pollution Management and other Environmental management activities.
- **Project Management:** Conducting project in the reserve such as alien plants control, road construction and water trough construction within the reserve.
- Pollution and Waste Management: Collecting of waste around the reserve and dump to the municipality dumping site, Cleaning of water points and replacing of contaminated water in a water points.

#### GENERIC SKILLS

Computer Literacy	Acquired at Groen Sebenza	
Career Guidance	Acquired at Groen Sebenza	
Communication	Acquired at Groen Sebenza	
Interpret and apply Environmental laws	Singo consulting	

#### KNOLEDGE

National Environmental Management: Protected Areas Act, 2003 (Act No.57 of 2003) (NEMPAA), Conservation of Agricultural resources Act, 1983 (Act No. 43 of 1983) (CARA), National Environmental Act, 1998 (Act No. 107 of 1998) (NEMA), National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2003) (NEMBA). Knowledge of Environmental Campaign & Education, Good understanding of conservation & bio-diversity management, Knowledge of indigenous game & plant species.

#### REFFERENCES

NAMES	RELATION SHIP	CONTACT NO
1. N K Singo	Manager	072 081 6682
2. Tsatsi MP	Mentor	076 932 7645
3. Manyaga T	Colleague	072 145 3460

### Appendix L: Authority Correspondence



MINZOMANZI (PTY) LTD 9 BAYSUN, 3 TASSELBERRY ROAD RICHARDSBAY 3900

ACKNOWLEDGEMENT OF AN APPLICATION FOR ENVIRONMENTAL AUTHORISATION LODGED IN TERMS OF SECTION 24 OF NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT 107 OF 1998) READ WITH REGULATION 19 OF THE ENVIRONMENTAL IMPACT ASSESSMENT (EIA) REGULATIONS, 2014 - MINING PERMIT AND RELATED INFRASTRUCTURAL ACTIVITIES. LISTED ACTIVITIES TRIGGERED BY APPLICATIONS IN TERMS OF THE MPRDA, 2002 (AS AMENDED)

- I refer to the abovementioned matter and advise that your application for an Environmental Authorisation ("EA") received on 28<sup>th</sup> August 2019 is hereby acknowledged.
- 2. In terms of Regulation 15 of the 2014 NEMA Regulations, an Environmental Assessment Practitioner (EAP) must identify whether a basic assessment or scoping & environmental impact reporting process must be applied to the application taking into account any notices published in terms of section 24D of the Act.
- The investigation, assessment and communication of the potential impact of activities must therefore follow the procedure as prescribed in regulation 19 of the Environmental Impact Assessment Regulations, 2014 in line with the listed activities as identified by your EAP.

KZN30/5/1/3/2/10661MP - MINZOMANZI (PTY) LTD

**DMR 10** 

- 4. It must be noted that acknowledgement of your application does not grant you permission to commence with MINING activities. Commencement of a listed activity without an environmental authorisation constitutes an offence in terms of Section 49A (1) (a) of NEMA, 1998 (Act 107 of 1998) as amended and upon conviction for such an offence, a person is liable to a fine not exceeding R10 million or to imprisonment for a period not exceeding ten years, or to both such fine and such imprisonment. In addition, you are also advised that if you remove primary processing from this application but do undertake this listed activity in the event that the EA is granted and mining permit is issued, you will be committing an offence as outlined above and subject to the applicable fine / imprisonment or both.
- 5. Your attention is drawn to paragraph 4 of the EA application form which states "The Regional Manager will respond to the application and provide the reference and correspondence details of the Competent Authority, and in the event that the application for a right or permit is accepted, together with the date by which the relevant environmental reports must be submitted. Notwithstanding anything that may appear to be stated to the contrary in the acceptance letter, the timeframes are in fact aligned and the prescribed timeframes for the submission of documents as regulated by the NEMA regulations must be strictly adhered to".
- 6. Your attention is drawn to Point 3 on page 1 of the EA application form read with Section 8 in respect of the need to lodge proof of an application for a water use licence upon acceptance of the application for a mining permit or right in terms of the MPRDA, 2002 (as amended).
- If the mining permit application is rejected, this office will cease with the processing of the environmental authorisation application.
- The Public Participation Process must comply with regulation 39 44 of the EIA Regulations, 2014 (as amended).

KZN30/5/1/3/2/10661MP - MINZOMANZI (PTY) LTD

- 9. You are advised that in terms of Regulation 40 (2) (b) & (c) of the NEMA EIA Regulations "The public participation process contemplated in this regulation must provide access to all information that reasonably has or may have the potential to influence any decision with regard to an application unless access to that information is protected by law and must include consultation with (b) every State department that administers a law relating to a matter affecting the environment relevant to an application for an environmental authorisation, (c) all organs of state which have jurisdiction in respect of the activity to which the application relates". This must include but not be limited to Ezemvelo KZN Wildlife, Department of Water and Sanitation and National Department of Agriculture Forestry and Fisheries.
- 10. Kindly note that Regulation 45 of 2014 EIA Regulations stipulates that "an application in terms of these Regulations lapses and a competent authority will deem the application as having lapsed, if the applicant fails to meet any of the time-frames prescribed in terms of these Regulations, unless extension has been granted in terms of regulation 3(7)."
- Kindly note that you will be required to upload a copy of the final environmental reports and its supporting documentation online and must lodge 3 hard copies at the Regional Office.

Please feel free to contact this office should you have any queries.

Yours faithfully

1 REGIONAL MANAGER

MINERAL REGULATION KWAZULU NATAL DATE: <u>28/08/2019</u>

KZN30/5/1/3/2/10661MP - MINZOMANZI (PTY) LTD



Department: Mineral Resources REPUBLIC OF SOUTH AFRICA

Private Bag X 54307, Durban, 4000, 333 Anton Lembede Street, 3" Floor Durban Bay House, Durban, Tel (031) 335 9600, Fax (031) 305 5801 Reference: KZN 30/5/1/3/2/ 10661 MP Enquiries: Mr. Sandile. Njapha Email address: sandile.njapha@dmr.gov.za, Date: 26th September 2019

#### REGISTERED MAIL

THE MANAGER MINZOMANZI (PTY) LTD P.O BOX 7297 HIGHVELD MALL EMALAHLENI (WITBANK) 1035

Dear Sir/Madam

ACCEPTANCE OF AN APPLICATION FOR MINING PERMIT IN TERMS OF SECTION 27 OF THE MINERAL AND PETROLEUM RESOURCES DEVELOPMENT ACT, (ACT 28 OF 2002) AS AMENDED BY SECTION 23 OF THE MINERALS AND PETROLEUM RESOURCES DEVELOPMENT AMENDMENT ACT (ACT 49 OF 2008) TO MINE GRANITE/SYENITE ON A PORTION OF THE FARM REMAINDER OF THE FARM 17 449-ET AND A PORTION OF THE FARM OIKO NO. 17 448-ET SITUATED IN THE MAGISTERIAL DISTRICT OF UGU: MINZOMANZI (PTY) LTD

- 1. Please be informed that your application for mining of Granite/Syenite on A Portion of the Remainder of the Farm 17 449-ET and A Portion of the Farm Oiko No. 17 448-ET situated in the Magisterial District of Ugu is hereby accepted on the above mentioned properties in terms of Section 27 (5) of the Act as amended by Section 23 (5) of the Amendment Act.
- 2. Take note that in light of the minimum requirements as stipulated on regulation 16 (1) and 16 (2) of the EIA Regulations, your application for an Environmental Authorisation was deemed incomplete as it was not accompanied by this acceptance letter as per Regulation 16 (1) (ix) and considering that it is now completed by this acceptance letter, you are hereby required to submit the

**DMR 10** 

Acceptance Of An Application For Mining Permit In Terms Of Section 27 Of The Mineral And Petroleum Resources Development Act, (Act 28 Of 2002) As Amended By Section 23 Of The Minerals And Petroleum Resources Development Amendment Act (Act 49 Of 2008) To Mine Granite/Syenite On A Portion Of The Farm Remainder Of The Farm 17 449-Et And A Portion Of The Farm Oiko No. 17 448-Et Situated In The Magisterial District Of Ugu: Minzomanzi (Pty) Ltd S.N

documents as stipulated on Regulation 19 (1) to 19 (8) of the EIA Regulation (only in cases where Basic Assessment Report is applicable or Regulation 21 (Scoping Report and Regulation 23 (Environmental Impact Report) (only in cases where applicable). All submission timeframes are effective from the dates of this acceptance letter.

- Please take notice that in terms of Section 27(5) of the Act as amended by Section 23 (2) and 23 (5) of the Amendment Act, you are required to:-
- 3.1. Upload unto the SAMRAD system one (01) copy and submit to our offices three (03) hard copies of the relevant environmental reports required in terms of Chapter 5 of the National Environmental Management Act 107 of 1998, within 90 days from date of this notice being the 14<sup>th</sup> February 2020.
- 3.2. to consult in the prescribed manner with the landowner, lawful occupier and any interested and affected party including the Land Restitution Commission and include the result of such consultation in the relevant environmental reports to be submitted and uploaded on the SAMRAD system on or before 05<sup>th</sup> November 2019 ( within 30 days from the date of this letter)

Please note that the consultation process referred to in paragraph 2.2 above does not imply issuing letters and requesting the affected parties to indicate whether they support your proposed project or not.

It includes among others an extensive process of giving and discussing the specific details of the proposed project, giving the I & A Parties an opportunity to table their comments, objection and support, it also involves **your written responses and specific commitments made** in dealing with the issues raised during the consultation.

Note that it is important to ensure that your consultation process is comprehensive so that your Environmental Impact Assessment and Environmental Management Plan can be informed by all potential impacts that your project may have.

Acceptance Of An Application For Mining Permit In Terms Of Section 27 Of The Mineral And Petroleum Resources Development Act. (Act 28 Of 2002) As Amended By Section 23 Of The Minerals And Petroleum Resources Development Amendment Act (Act 49 Of 2008) To Mine Granite/Syenite On A Portion Of The Farm Remainder Of The Farm 17 449-Et And A Portion Of The Farm Oiko No. 17 448-Et Situated In The Magisterial District Of Ugu: Minzomanzi (Pty) Ltd S.N

- 4. Should the land be owned by the communities or a Trust on behalf of the community, a proper and thorough consultation process must be engaged upon and a legitimate Tribal Resolution or consent must be obtained from the Traditional Authority / Council or Trust and be submitted with the results of consultation. Should you need any assistance or guidance relating to the required consultation process & procedure in traditional institutions, please contact the District office of the Department of Cooperative Governance and Traditional Affairs in Ugu District Municipality.
- 5. Further note that the acceptance of your application does not grant you the right to commence with mining activities. It only signifies that your application will be processed and evaluated. The Minister or her delegate will make a decision once the process of the evaluation and appeal on the Environmental Authorization application has been finalized.
- 6. You are also required to adhere with the requirements of Mine Health and Safety Inspectorate and upload on system the required information and details on or before 05<sup>th</sup> November 2019 (within 30 days from the date of this letter).
- Please be advised that your application might be processed in terms of Section 9

   (1) (b) of the Act, should this office discover that there is an existing right on the same properties and for the same mineral, this application shall discontinue.
- Please take note that failure to adhere to the timeframe stipulated above and to submit any documentation required in terms of this notice will result into noncompliance with the provision of the Act and the Amendment Act and will result in the refusal of your application.

Yours faithfully

REGIONAL MANAGER KWAZULU NATAL REGION DATE: 2610912019

Acceptance Of An Application For Mining Permit In Terms Of Section 27 Of The Mineral And Petroleum Resources Development Act, (Act 28 Of 2002) As Amended By Section 23 Of The Minerals And Petroleum Resources Development Amendment Act (Act 49 Of 2008) To Mine Granite/Syenite On A Portion Of The Farm Remainder Of The Farm 17 449-Et And A Portion Of The Farm Oiko No. 17 448-Et Situated In The Magisterial District Of Ugu: Minzomanzi (Pty) Ltd S.N



# mineral resources

Mineral Resources REPUBLIC OF SOUTH AFRICA

Private Bag X 54307, DURBAN, 4000, 333 Anton Lembede Street, 3<sup>rd</sup> Floor Durban Bay House, DURBAN Tel (031) 335 9600, Fax (031) 305 5801 Enquiries: Mr. K.G Moodley Email: karoon.moodley@dmre.gov.za Reference: KZN 30/5/1/3/2/10695MP

THE MANAGER MINZOMANZI (PTY) LTD 9 BAYSUN, 3 TASSELBERRY ROAD RICHARDS BAY 3900

APPLICATION FOR ENVIRONMENTAL AUTHORISATION LODGED IN TERMS OF SECTION 24 OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT 107 OF 1998) READ WITH REGULATION 19 OF THE ENVIRONMENTAL IMPACT ASSESSMENT (EIA) REGULATIONS, 2014 – MINING PERMIT AND RELATED INFRASTRUCTURAL ACTIVITIES. LISTED ACTIVITIES TRIGGERED BY APPLICATIONS IN TERMS OF THE MPRDA, 2002 (AS AMENDED)

- The revised application for an Environmental Authorisation and requisite screening tool report lodged on 24<sup>th</sup> July 2020 is hereby acknowledged.
- 2. In terms of Regulation 15 of the 2014 NEMA Regulations, an Environmental Assessment Practitioner (EAP) must identify whether a basic assessment or scoping & environmental impact reporting process must be applied to the application taking into account any notices published in terms of section 24D of the Act.
- The investigation, assessment and communication of the potential impact of activities must therefore follow the procedure as prescribed in regulation 19 of the Environmental Impact Assessment Regulations, 2014 in line with the listed activities as identified by your EAP.

KZN30/5/1/3/2/10695MP - Minzomanzi (Pty) Ltd

- 4. It must be noted that acknowledgement of your application does not grant you permission to commence with MINING activities. Commencement of a listed activity without an environmental authorisation constitutes an offence in terms of Section 49A (1) (a) of NEMA, 1998 (Act 107 of 1998) as amended and upon conviction for such an offence, a person is liable to a fine not exceeding R10 million or to imprisonment for a period not exceeding ten years, or to both such fine and such imprisonment.
- 5. Your attention is drawn to paragraph 4 of the EA application form which states "The Regional Manager will respond to the application and provide the reference and correspondence details of the Competent Authority, and in the event that the application for a right or permit is accepted, together with the date by which the relevant environmental reports must be submitted. Notwithstanding anything that may appear to be stated to the contrary in the acceptance letter, the timeframes are in fact aligned and the prescribed timeframes for the submission of documents as regulated by the NEMA regulations must be strictly adhered to".
- 6. Your attention is drawn to Point 3 on page 1 of the EA application form read with Section 8 in respect of the need to lodge proof of an application for a water use licence upon acceptance of the application for a mining permit or right in terms of the MPRDA, 2002 (as amended).
- If the mining permit application is rejected, this office will cease with the processing of the environmental authorisation application.
- The Public Participation Process must comply with regulation 39 44 of the EIA Regulations, 2014 (as amended).
- 9. You are advised that in terms of Regulation 40 (2) (b) & (c) of the NEMA EIA Regulations "The public participation process contemplated in this regulation must provide access to all information that reasonably has or may have the potential to influence any decision with regard to an application unless access to that information is protected by law and must include consultation with (b) every State department that administers a law relating to a matter affecting the environment relevant to an KZN30/5/1/3/2/10695MP Minzomanzi (Pty) Ltd

application for an environmental authorisation, (c) all organs of state which have jurisdiction in respect of the activity to which the application relates".

- 10. This aforementioned consultation with Organs of State <u>must include but</u> <u>not be limited to</u> Ezemvelo KZN Wildlife, Department of Human Settlement, Water and Sanitation, National Department of Agriculture, Land Reform and Rural Development, AMAFA KZN.
- 11. Kindly note that Regulation 45 of 2014 EIA Regulations stipulates that "an application in terms of these Regulations lapses and a competent authority will deem the application as having lapsed, if the applicant fails to meet any of the time-frames prescribed in terms of these Regulations, unless extension has been granted in terms of regulation 3(7)."
- 12. Kindly note that you will be required to upload a copy of the final environmental reports and its supporting documentation online and must lodge 3 hard copies at the Regional Office.

Please feel free to contact this office should you have any queries.

Yours faithfully

REGIONAL MANAGER MINERAL REGULATION KWAZULU NATAL DATE: 24/07/2020

KZN30/5/1/3/2/10695MP - Minzomanzi (Pty) Ltd

Appendix M: Emergency, Preparedness and Response Plan

## Appendix N: Specialist Studies