

BASIC ASSESSMENT REPORT & ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT

MINING PERMIT APPLICATION FOR SAND, AGGREGATES, SILICA AND DECORATIVE STONES (GEMSTONES) ON PORTION OF PORTION 15 OF THE FARM MIDDELBURG 231 IR, DELMAS MAGISTERIAL, MPUMALANGA PROVINCE

DMRE REF: MP 30/5/1/3/2/12552 MP

PREPARED BY:



Singo Consulting (Pty) Ltd

Office No. 16, First Floor (South Block),
Corridor Hill Crossing, 9 Langa Crescent,
Corridor Hill, eMalahleni (Witbank), 1040

Tel: 013 692 0041

Cell: 078 272 7839

Fax: 086-514-4103

Email: admin@singoconsulting.co.za

ON BEHALF OF:



2682 Marokwane Street, Botleng, Delmas,
Mpumalanga, 2210

Tell No.: +27 82 543 0677

Fax No.: +27 86 5144 103

Cell No.: +27 82 543 0677

Email: thabo@motaumining.co.za

2020

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).

Name of applicant	Motau Mining Services
Tel No.	+27 82 543 0677
Fax No.	+27 86 514 4103
Physical address	2682 Morokwane Street Botleng Delmas Mpumalanga 2210
Email address	thabo@motaumining.co.za
DMRE Reference number: MP 30/5/1/3/2/12552 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

PART A: SCOPE OF ASSESSMENT AND BASIC ASSESSMENT REPORT	1
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.....	3
2.3 Listed and specified activities	5
2.4 Description of the activities to be undertaken	6
2.4.1 Site establishment/construction phase	10
2.4.2 Operational phase	11
2.4.3 Decommissioning phase	12
2.5 Policy and legislative context	13
2.6 Need and desirability of the proposed activities	16
2.7 Motivation for the overall preferred site, activities and technology alternative	17
2.8 Full description of process followed to reach proposed preferred alternatives within the site.....	18
2.8.1 Preferred site	18
2.8.2 Preferred activities	18
2.8.3 Technology alternatives	18
2.9 Details of the development footprint alternatives considered	18
2.9.1 Open cast mining (preferred alternative) vs. underground mining	19
2.9.2 Temporary infrastructure (preferred alternative) vs. permanent infrastructure	19
2.9.3 Access onto provincial road (preferred alternative) vs. national road	20
2.9.4 No-go alternative	21
2.10 Details of the public participation process followed	22
2.11 Summary of issues raised by I&APs	27
2.12 The environmental attributes associated with the alternatives.	33
3 Baseline environment.....	33
3.1 Type of environment affected by the proposed activity	33
3.1.1 Regional geology	33
3.1.2 Local geology	34
3.1.3 Flora	35
3.1.4 Fauna	37

3.1.5	Biodiversity.....	39
3.1.6	Soil.....	40
3.1.7	Surface and ground water	42
3.1.8	climate.....	45
3.1.9	Topography	47
3.1.10	Public roads	48
3.2	Graves, heritage, archaeological and cultural resources	50
3.3	Railway line	51
3.4	Noise	53
3.5	Socio-economic	53
3.6	Description of current land uses	55
3.7	Description of site-specific environmental features and infrastructure	56
3.8	Environmental and current land use map.....	57
3.9	Impacts and risks identified, including the nature, significance, consequence, extent, duration and probability of the impacts.....	58
3.9.1	Stripping and stockpiling of topsoil	58
3.9.2	Blasting.....	59
3.9.3	Excavation	59
3.9.4	In-pit crushing	60
3.9.5	Stockpiling and transporting.....	61
3.9.6	Sloping and landscaping during rehabilitation	62
3.9.7	Replacing of topsoil and rehabilitation of disturbed area	63
3.10	Methodology for the assessment of the potential environmental, social and cultural impacts	63
3.10.1	Definitions and concepts	64
3.10.2	Determination of overall environmental significance.....	67
3.10.3	Description of environmental significance and related action required.....	68
3.11	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	69
3.12	The possible mitigation measures that could be applied and the level of risk	70
3.12.1	Visual mitigation.....	70
3.12.2	Dust handling.....	70
3.12.3	Noise handling.....	71
3.12.4	Management of weed or invader plants	71

3.12.5	Storm water handling.....	71
3.12.6	Management of health and safety risks	72
3.12.7	Waste management.....	72
3.12.8	Management of access roads	73
3.12.9	Topsoil handling	73
3.12.10	Protection of fauna and flora	74
3.13	Motivation where no alternative sites were considered.....	74
3.14	Statement motivating the alternative development location within overall site	75
3.15	Process undertaken to identify, assess and rank impacts and risk of site activities.....	75
3.15.1	Stripping and stockpiling of topsoil	76
3.15.2	Blasting.....	77
3.15.3	Excavation	77
3.15.4	Crushing.....	78
3.15.5	Stockpiling and transporting.....	79
3.15.6	Sloping and landscaping during rehabilitation	80
3.15.7	Replacing of topsoil and rehabilitation of disturbed area	81
3.16	Assessment of each identified potentially significant impact and risk	82
3.17	Summary of specialist reports.....	88
3.18	Environmental impact statement.....	93
3.18.1	Summary of the key findings of the EIA.....	93
3.18.2	Final site map.....	94
3.18.3	Positive and negative impacts of the proposed activity and alternatives.....	95
3.19	Proposed impact management objectives and the impact management outcomes for inclusion in the EMPr	95
3.20	Aspects for inclusion as conditions of authorisation	98
3.21	Description of any assumptions, uncertainties and gaps in knowledge	98
3.22	Reasoned opinion as to whether the proposed activity should be authorised.....	98
3.23	Period for which the Environmental Authorisation is required	98
3.24	Undertaking	98
3.25	Financial provision	99
3.25.1	Explain how the aforesaid amount was derived	99
3.25.2	Confirm that this amount can be provided from operating expenditure	99
3.26	Specific information required by the Competent Authority	100
3.26.1	Impact on the socio-economic conditions of any directly affected person.....	100

3.26.2	Impact on any national estate referred to in section 3(2) of the National Heritage Resources Act.....	100
3.27	Other matters required in terms of section 24(4)(a) and (b) of the Act	100
4	Environmental management programme	102
4.1	Details of the EAP	102
4.2	Description of the aspects of the activity	102
4.3	Composite map	102
4.4	Description of impact management objectives, including management statements..	102
4.4.1	Determination of closure objectives.....	102
4.5	Volume and rate of water use required for the operation	104
4.6	Has a water use licence has been applied for?	104
4.7	Impacts to be mitigated in their respective phases	105
4.8	Impact management outcomes	132
4.9	Impact management actions	141
5	Determination of the amount of financial provision.....	153
5.1	Closure objectives and the extent to which they have been aligned to the baseline environment described under the Regulation	153
5.2	Confirm specifically that the environmental objectives in relation to closure have been consulted with landowner and I&APs	153
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	153
5.4	Explain why it can be confirmed that the rehabilitation plan is compatible with the closure objectives.....	153
5.4.1	Rehabilitation of the excavated area	154
5.4.2	Rehabilitation of plant area	154
5.4.3	Final rehabilitation	155
5.5	Calculate and state the quantum of the financial provision required to manage and rehabilitate the environment in accordance with the applicable guideline	155
5.5.1	Mine type and saleable mineral by-product.....	155
5.5.2	Risk ranking.....	156
5.5.3	Environmental sensitivity of the mine area	156
5.5.4	Level of information.....	156
5.5.5	Identify closure components.....	156
5.5.6	Calculation of closure costs	157
5.6	Confirm that the financial provision will be provided as determined.....	157

5.7	Mechanisms for compliance monitoring against EMP	158
5.8	Indicate frequency of the submission of the performance assessment/ environmental audit report	166
5.9	Environmental Awareness Plan	166
5.9.1	Manner in which the applicant intends to inform employees of any environmental risk which may result from their work	166
6	Manner in which risk will be dealt with to avoid pollution or environmental degradation	169
6.1	Training (educational needs)	169
6.2	Outsourced specialist skills	170
6.3	Review and updating of training manual and course layout	170
6.4	Records	171
6.5	Environmental awareness notice boards	171
6.5.1	Site management.....	173
6.5.2	Water management and erosion	173
6.5.3	Waste management.....	173
6.5.4	Hazardous waste management (petrol, oil, diesel, grease)	173
6.5.5	Discoveries	174
6.5.6	Air quality.....	174
6.5.7	Driving and noise	174
6.5.8	Vegetation and animal life.....	174
6.5.9	Fire management	174
6.6	Specific information required by the Competent Authority	175
7	Undertaking	175

FIGURES

Figure 1: Locality map showing the local municipality and district the project area falls under (Nkangala District)	2
Figure 2: Locality map showing the location of the project area (Delmas) and nearest towns.	3
Figure 3: Proposed mine layout of the project area.....	4
Figure 4: Typical illustration of an opencast mining	8
Figure 5: Topsoil removal	8
Figure 6: Overburden blasting and removal	9
Figure 7: Backfilling and rehabilitation.....	9
Figure 8: Schematic illustration of open cast mine operations.....	12
Figure 9: Google Earth view map showing access road	21

Figure 10: Picture showing the access road to be used	21
Figure 11: Proof of newspaper published in the Streeknuus/news Delmas (07 August 2020)	24
Figure 12: Proof of Erratum published in the Streeknuus/news Delmas (21 August 2020)	25
Figure 13: Deed search.....	26
Figure 14: Geology map of the project area	35
Figure 15: Vegetation type map of the proposed project area	36
Figure 16: pictures showing the vegetation observed on site during site assessment	37
Figure 17: Picture depicting cow dung observed on site	38
Figure 18: Map showing the Animal species sensitivity of the project area (screening report)	38
Figure 19: Biodiversity map of the project area	40
Figure 20: Project area soil type	41
Figure 21: Project area soil classes map	42
Figure 22: Quaternary Catchment and Water Management Area map for the proposed mining area.	43
Figure 23: Hydrology map of the project area	43
Figure 24: Cross section of a fractured aquifer	45
Figure 25: Delmas Climate Graph (source: Climate-data.org)	46
Figure 26: Mean Annual Rainfall within the project area	47
Figure 27: Topography of the project area	48
Figure 28: Locality map showing both N12 and R42 as access roads to the proposed project area.	49
Figure 29: Google Earth map showing access road to the project area.	49
Figure 30: pictures showing access roads to the proposed project area.	50
Figure 31: Google earth view map showing railway line.	52
Figure 32: Land use map	55
Figure 33: Current land use map, project area highlighted by a red rectangle.	57
Figure 34: Layout plan of the proposed mining permit area	94
Figure 35: Calculation of the quantum for the proposed mining permit application	99

APPENDICES

Appendix 1: Curriculum Vitae of the EAP	176
Appendix 2: Project maps.....	177
Appendix 3: Public Participation Processes Followed	185
Appendix 4: Stakeholder engagement	199
Appendix 5: Site conditions	222
Appendix 6: Financial provision	224
Appendix 7: Stakeholder correspondence	225
Appendix 8: Specialist studies	226

PART A: SCOPE OF ASSESSMENT AND BASIC ASSESSMENT REPORT

1 Contact person and correspondence address

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

Details of the EAP who prepared this report

Name of practitioner	Deshney Mapoko
Occupation	Junior consultant
Cell No.	+27 (0) 72 116 1225
Tel No.	+27 (0) 13 692 0041
Fax:	+27 (0) 86 514 4103
Email:	deshney@singoconsulting.co.za

Details of the EAP who reviewed this report

Name of practitioner	Dr Kenneth Singo
Occupation	Principal EAP
Cell No.	+27 (0) 78 272 7839/ 72 081 6682
Tel No.	+27 (0) 13 692 0041
Fax:	+27 (0) 86 514 4103
Email:	kenneth@singoconsulting.co.za

b) Qualifications of the principal EAP

See attached CV as appendix 1.

2 Location of the overall activity

Farm name	Portion of portion 15 of the farm Middelburg 231 IR
Application area (ha)	5 ha
Magisterial district	Delmas Magisterial District
Distance and direction from nearest town	Approximately 1.82 km South of Botleng Approximately 4.08 km North East of Delmas
21-digit Surveyor General code for each farm portion	TOIR00000000023100015

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

The Mpumalanga province occupies the eastern side of South Africa (covers almost 6.5% of South Africa's land area). It is surrounded by the Limpopo, Gauteng, Free State and KwaZulu-Natal provinces, as well as Swaziland on the east. The project is located in Delmas Magisterial District, under the Victor Khanye Local Municipality within Nkangala District, see Figure 1 below.

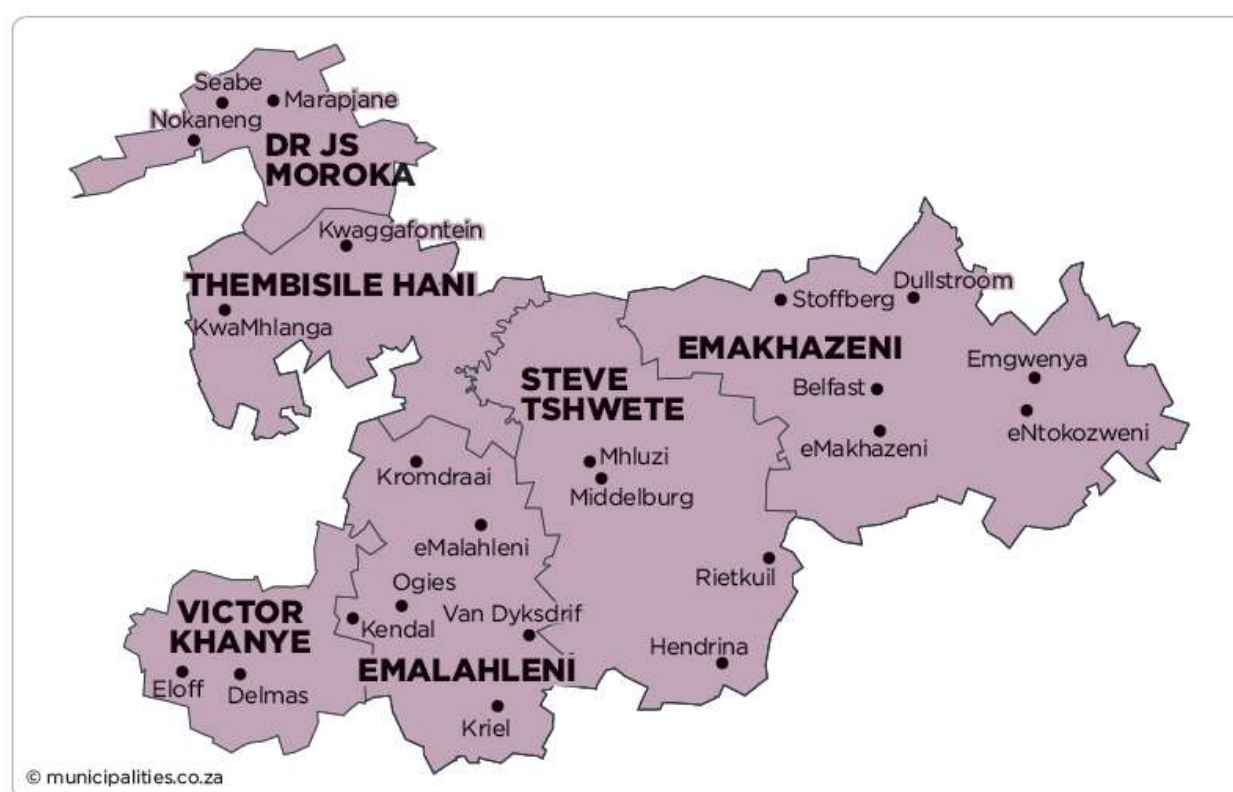


Figure 1: Locality map showing the local municipality and district the project area falls under (Nkangala District)

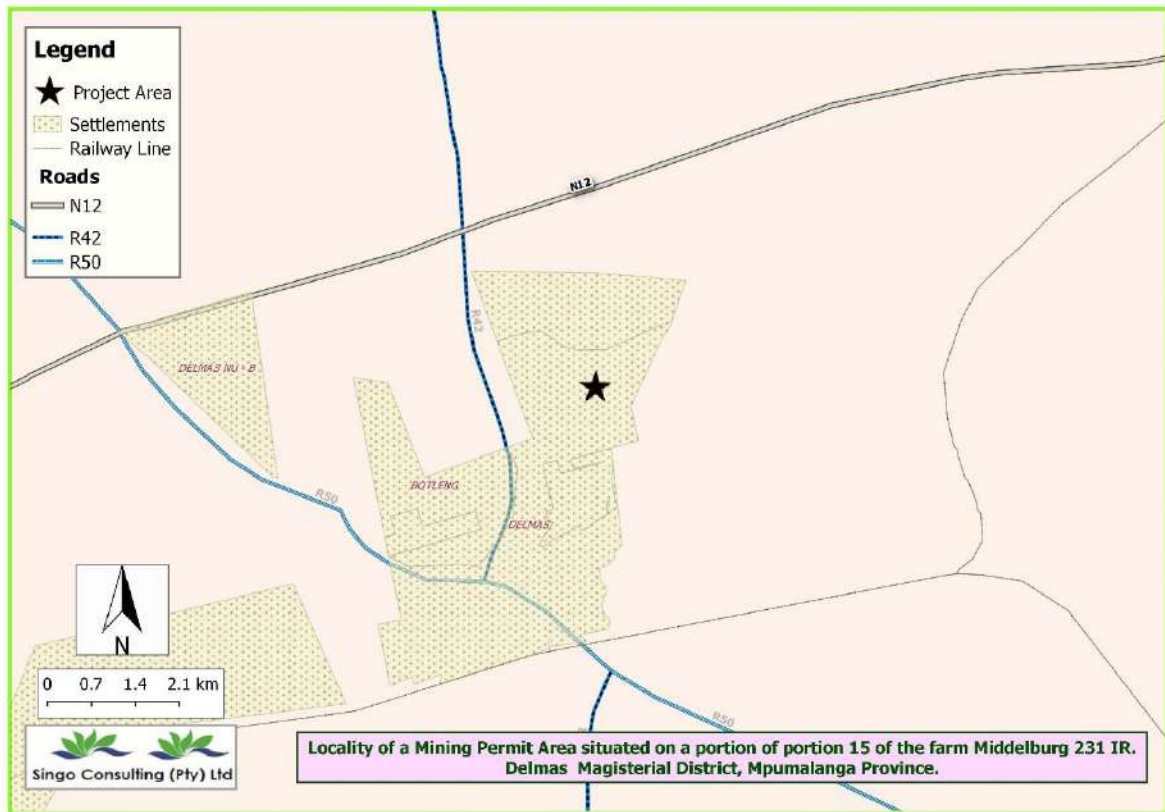


Figure 2: Locality map showing the location of the project area (Delmas) and nearest towns.

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.

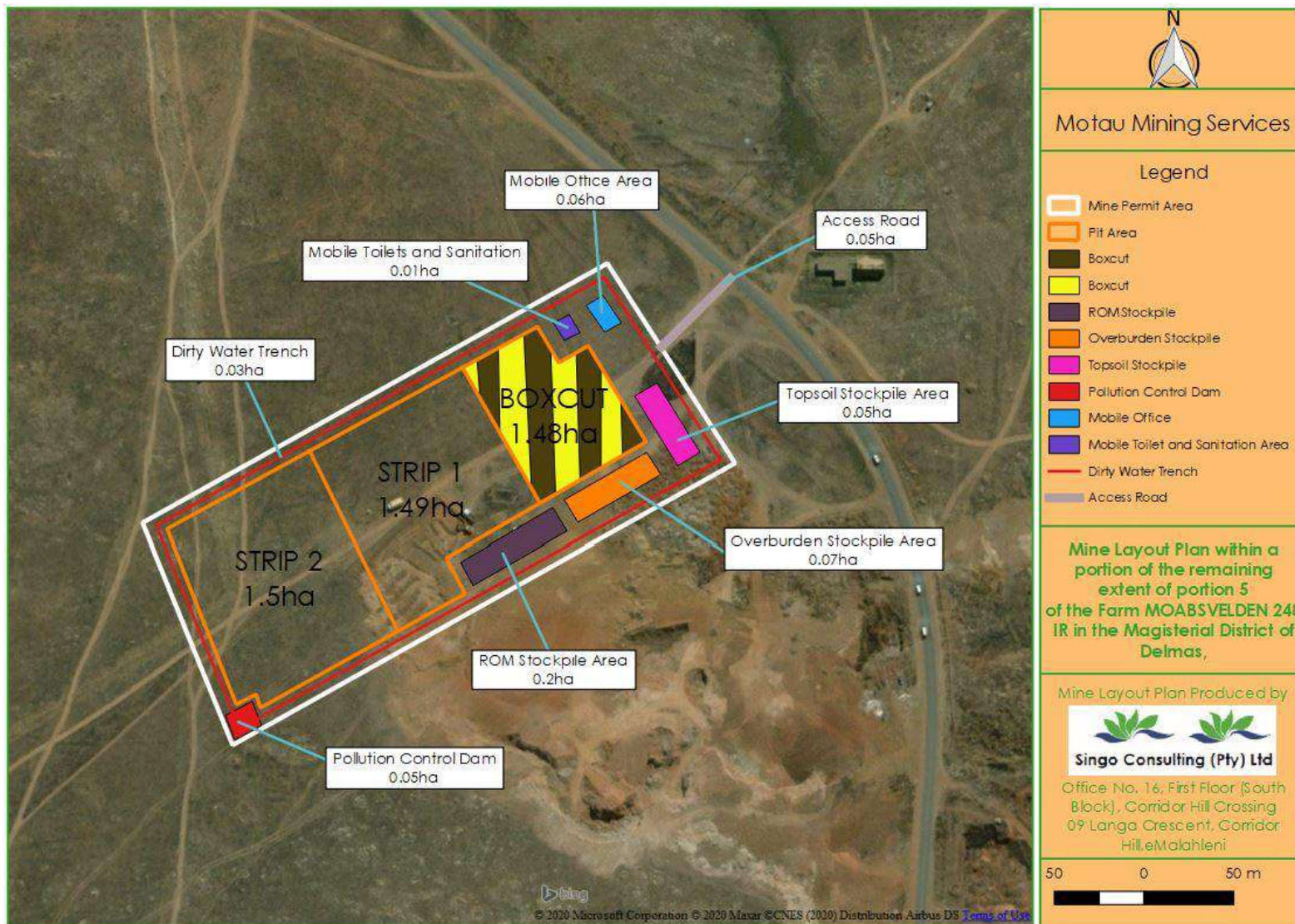


Figure 3: Proposed mine layout of the project area

2.3 Listed and specified activities

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 m²	Listed activity Mark with X where applicable or affected	Applicable listing notice (GNR 324, GNR 325 OR GNR 327)
Mining Permit Application	5Ha	X	GNR 327 Activity 21:
A closure certificate in terms of section 43 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002)	5Ha	X	GNR 327 Activity 22
Vegetation Clearance	5 Ha	X	GNR 327 Activity 27
Overburden stockpile	0.07Ha	X	Not listed
Access road	0.05Ha	X	Not listed
Topsoil stockpile	0.05Ha	X	Not listed
ROM stockpile area	0.2Ha	X	Not listed
Dirty water trench	0.03Ha	X	Not listed
Mobile offices	0.06Ha	X	Not listed
Toilets and sanitation	0.01Ha	X	Not listed
Pollution Control Dam (PCD) construction	0.05Ha	X	Not listed
Box cut construction	4.47Ha	X	Not listed
Ripping	4.47 Ha	X	Not listed
Coal extraction	4.47 Ha	X	Not listed
Rehabilitation	5 Ha	X	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 Sand, Aggregate, Silica and Decorative stones (Gemstones) from the land that has not previously operated by Motau Mining Services on portion of portion 15 of the farm Middelburg 231 IR situated within the Victor Khanye local municipality within the Delmas magisterial district. The topsoil will be removed on other site of the permit and stockpiled on 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 mined rock into pieces small enough to be transported. The Silica Sand, Aggregate and Gemstones will then be stockpiled and transported to clients via trucks and trailers. All activities will be contained within the boundaries of the mining site.

NAME OF ACTIVITY	Aerial extent of the activity	Listed activity	Applicable listing notice
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.	Ha or m ²	Mark with X where applicable	GNR 544, GNR 545 or GNR 546
Open cast mining and crushing to produce sand, aggregates, silica and decorative stones commodities required by clients.	5ha	X	GN R. 324 (of 2017), Activity 12(b): The clearance of an area of 300 square meters or more of indigenous vegetation except where such clearance of such indigenous vegetation is required for maintenance purpose undertaken in accordance with a maintenance management plan (i) within any critically endangered or endangered ecosystem listed in terms of

			Section 52 of the NEMBA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004 and (ii) within critical biodiversity areas identified in bioregional plans.
Open cast mining and crushing to produce sand, aggregates, silica and decorative stones commodities required by clients	5ha	X	GN R. 327 (of 2017), Activity 21: 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),
Open cast mining and crushing to produce sand, aggregates, silica and decorative stones commodities 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;

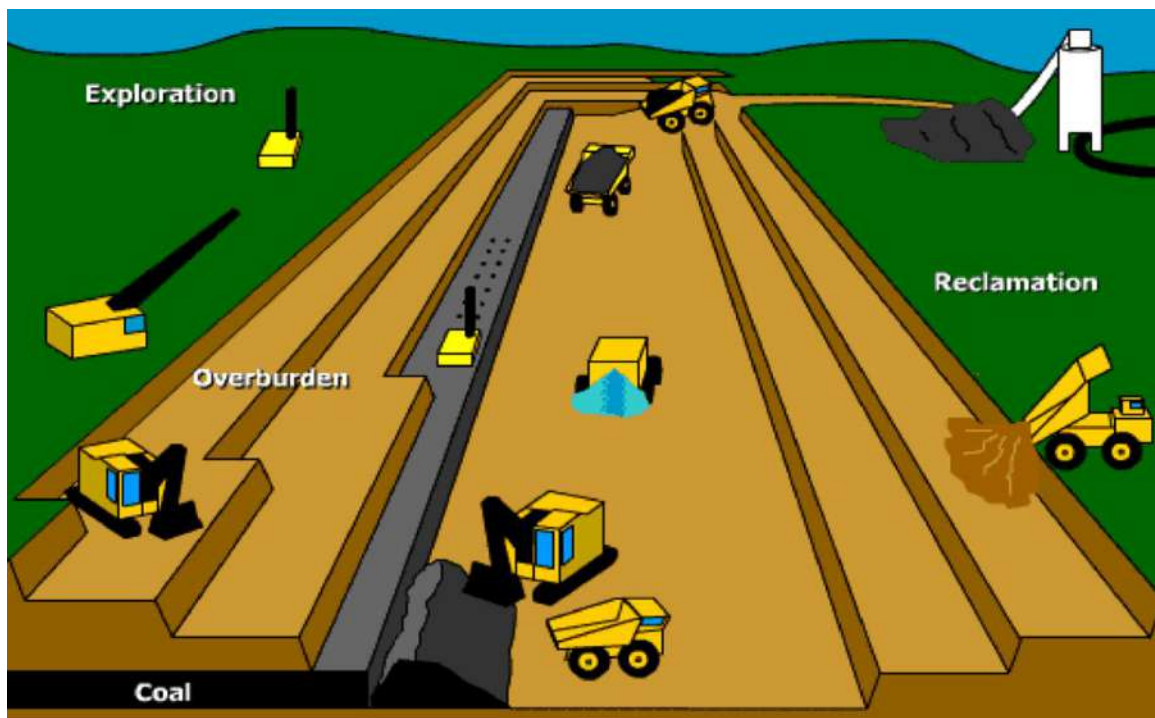


Figure 4: Typical illustration of an opencast mining

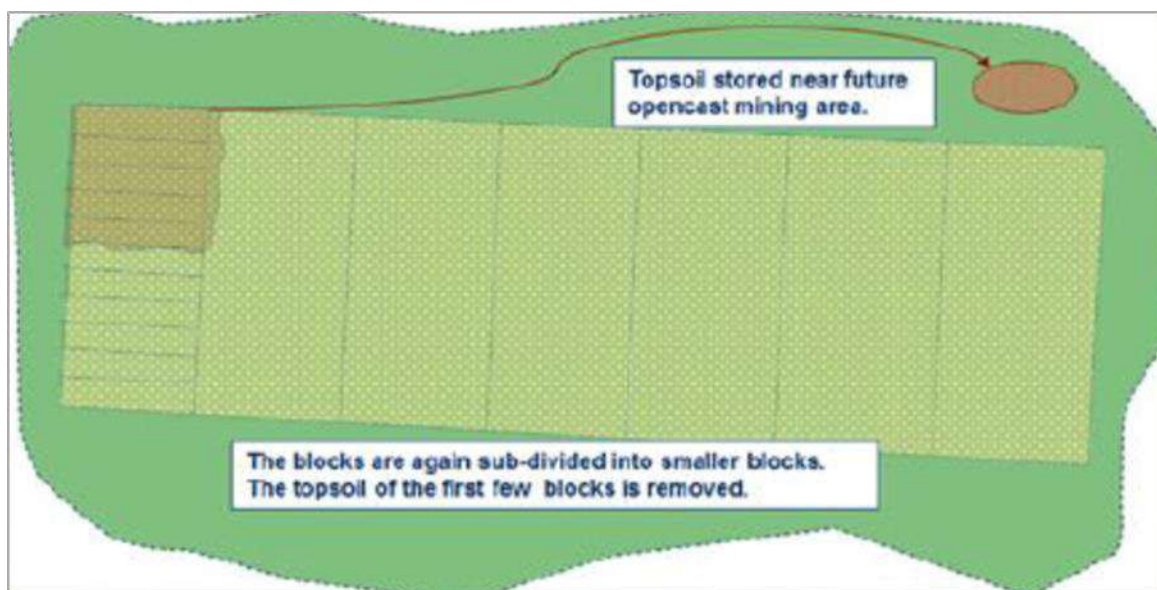


Figure 5: Topsoil removal

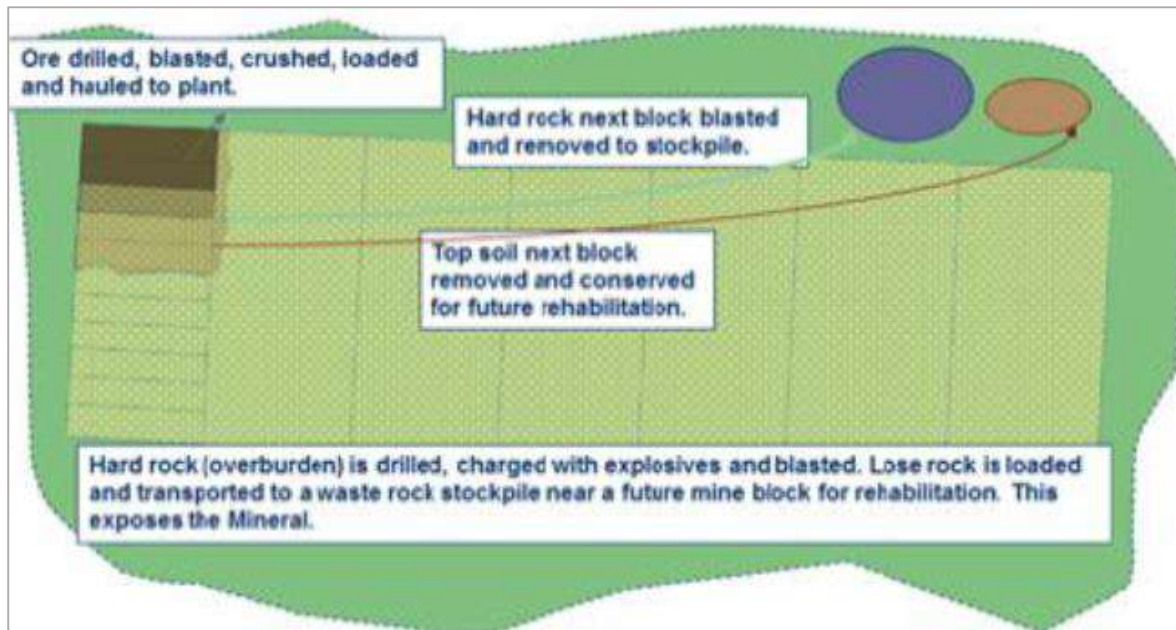


Figure 6: Overburden blasting and removal

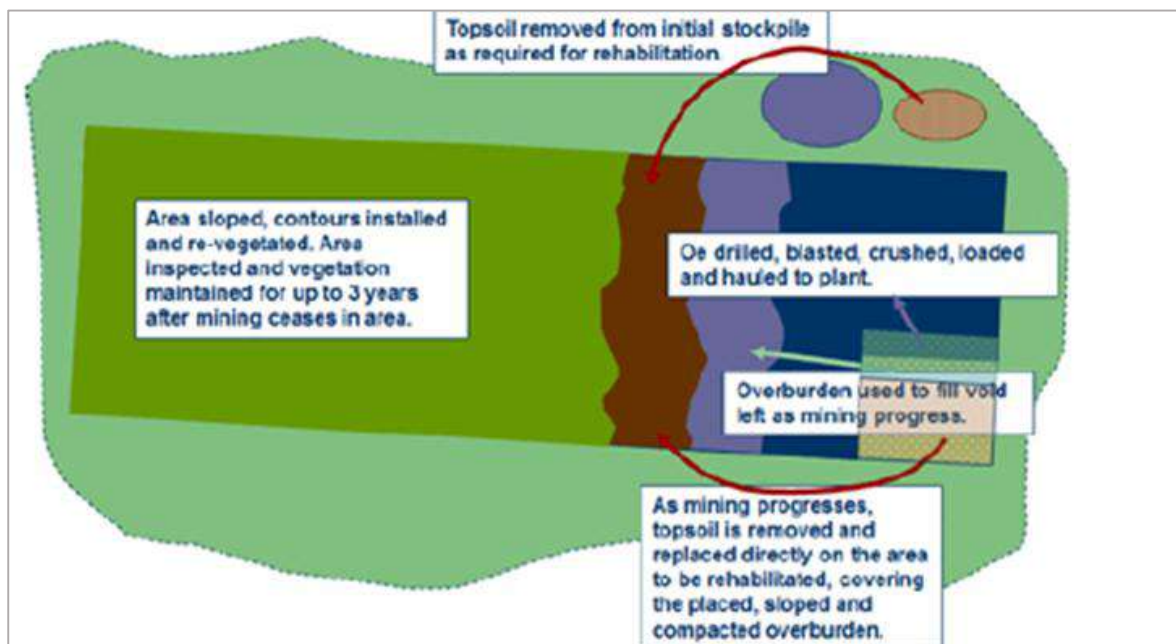


Figure 7: Backfilling and rehabilitation

Motau Mining Services intends to loosen the hard rock by blasting activities, upon which it will be mechanically recovered with drilling, excavating and earth-moving equipment. A mobile crushing and screening plant will be present at the mining area. After the blast, recovered commodities will be loaded on a tipper truck and transported to the crusher plant where they will be crushed and screened to various specifications, as per customer requirements. Transportation of the final product will be from the stockpile area to the client by means of trucks. The mine process map is shown in the table below;

Phase	Activity no	Activity
Construction	1	Site clearing: Removal of topsoil and vegetation
	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
Operation	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 commodities (mining process) and run of mine (RoM) coal 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
Decommissioning	11	Removal of all infrastructure (incl. transportation off site)
	12	Rehabilitation (spreading of soil, re-vegetation and profiling)
	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)
Post-closure	16	Post-closure monitoring and rehabilitation

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 topsoil 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 and blast equipment
- Earth moving equipment

2.4.2 Operational phase

The open cast mining process includes removing the topsoil and drilling to set charges; detonation; loading and short haul; and stockpiling. The rock material used to produce the applied resources will be recovered through drilling and blasting activities from the open pit to be developed on site. Blasting is anticipated to occur twice a week. The noise caused by blasting will be instantaneous and of short duration. The applicant should ensure that all surrounding residents are informed of each blasting event. The hard rock will be broken through blasting, after which it will be extracted by means of bulldozers and draglines which will then be transported with tipper trucks to the mobile crusher plant. The rocks will be run through the crushers to produce the end product, in various grades of stone dependent on the market.

Natural sand is dug from the ground often using hydraulic excavators. The quality and final use of the sand usually determines the amount of processing necessary. The sand undergoes complementary processing including washing and scrubbing, primarily to make them cleaner before being stockpiled to go on to their end use.

It is now common to further beneficiate the aggregate into:

- Ready mix concrete
- Asphalt
- Bricks and paving material

The machinery used in the operation will be serviced at the applicant's existing off-site workshop. Only emergency repairs will be conducted on site with regular equipment maintenance at the above-mentioned workshop. The mining site will not require the storage of large quantities of diesel, as this is already available at the applicant's workshop area. 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.

The mining activities will consist of the following:

- Excavating
- Drilling and Blasting
- Loading and hauling
- Crushing and screening
- Stockpiling and transporting

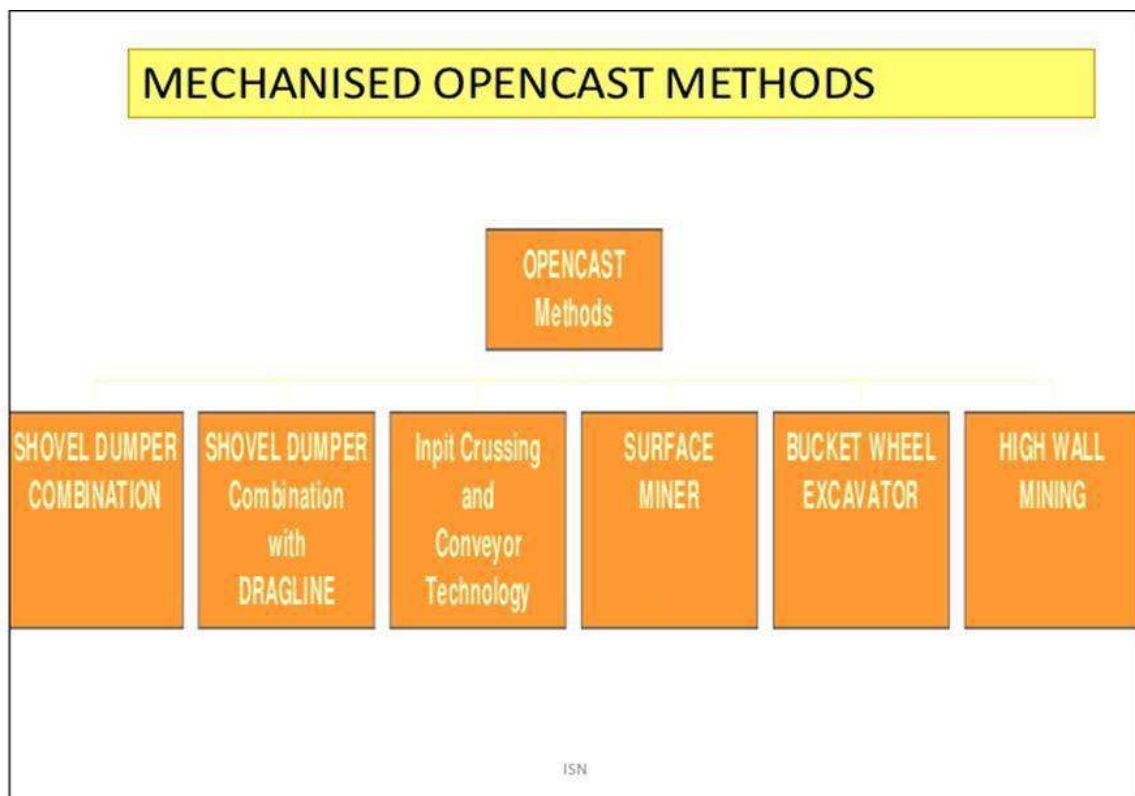


Figure 8: Schematic illustration of open cast mine operations

2.4.3 Decommissioning phase

The closure objectives include making the mining area safe and ensuring that the remainder of the site is fit for agricultural use. The pit will be incorporated into the closure objectives of the proposed extension area, which will entail the benching of the site. Benches will be built with overburden, top-dressed with topsoil and 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:

- Sloping and landscaping during rehabilitation
- Replacing of topsoil
- Implementation of an alien invader plant management plan

2.5 Policy and legislative context

Applicable legislation and guidelines used to compile the report Description of the policy and legislative context in which the development is proposed, including identification of all legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks and instruments applicable to this activity and to be considered in the assessment process	Reference where applied	Development's compliance with and response to the policy and legislative context E.g. in terms of the National Water Act 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.
Constitution of South Africa, specifically everyone has the right: a) to an environment that is not harmful to their health or wellbeing; and b) to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that i) prevent pollution and ecological degradation; ii) promote conservation; and iii) secure ecologically	BAR & EMPr	The mining activities will only proceed after effective consultation. All activities will be conducted in a manner that does not violate the Constitution of the Republic of South Africa.

sustainable development and use of natural resources while promoting justifiable economic and social development.		
Environmental Impact Assessment Regulations	BAR & EMPr	This Basic Assessment Report is being undertaken in terms of the Environmental Impact Assessment Regulations to determine any possible impacts on the environment and to propose sufficient mitigation in order to prevent harm on the environment.
National Environmental Management Act (NEMA), 1998 (No. 107 of 1998)	Application for environmental authorisation: DMRE Reference: MP 30/5/1/3/2/ 12552 MP	GN R. 324/GN R. 325/GN R. 327 Activities 12, 21, and 22
The clearance of an area of 1 hectare or more, but less than 20 hectares, 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.	Mining Permit area (5 ha)	Activity 27: Listing Notice 1 (07 April 2017)
National Environmental Management Act: Biodiversity Act, 2004 (Act No. 10 of 2004) and amendments	Biophysical environment	The potential impact on Conservation Important Floral and faunal species in the Study area, and the management thereof is addressed in this BAR.
National Environmental Management: Waste Act, Act 59 of	Management measures Environmental awareness plan	It is recommended that municipal solid waste by-

2008 (NEMWA)NEM: WA Victor Khanye Local Municipality Waste Management By-Law, no. 48 of 2017.		laws be adhered to at all times during the life time of the proposed mine to manage waste produced on site.
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
National Heritage Resources Act (NHRA), No 25 of 1999	Cultural and heritage environment	No mining activities will take place within 500m of any identified heritage resource such as a grave. (no graves have been identified).
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
National Environmental Management Air Quality Act (Act No. 39 of 2004, Government Gazette No. 27318) (NEMAQA) National Ambient Air Quality (GN 1210: 2009) National Dust Control Regulations (GN 275: 2017) Victor Khanye Local Municipality Air Quality Management By-Laws, 2018	Air Quality & Dust Control	Standards for particulates and dust used in Impact Assessment to regulate the concentration of a substance that can be tolerated without any environmental deterioration. Dust control measures Management of exposure to dust and toxic particles.
National Water Act, 1998 (Act 36 of 1998). Best Practice Guidelines: Series A, G, & H Victor Khanye Local Municipality Water & Waste Water By-Law	(S 21) Water Use & Mine water Management	Best practice guidelines will be used for water management, water characterization, water resource protection, water treatment, development of mine water management model.
Victor Khanye Local Municipality (2017-2021) Intergrated	Needs, Desirability and Socio economic needs	The needs of surrounding communities outlined

Development Plan- Final		during public participation and municipality services shortfalls (as outlined by the municipality manager) will be addressed.
ISO 14001:2015 Principle of Sustainable development	Environmental Management System	Development of an integrated Environmental Management System and measures for responding to environmental conditions (PDCA model).

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 rapid growth of urban areas in South Africa has placed tremendous pressure on existing building material supplies, as the demand for land use for infrastructure, housing, recreation and industrial building activities is growing. Growing markets for aggregates and silica sand include recreational and filter media applications, construction and glass manufacture with gemstones used to make jewellery and other adornments.

Assessment of the geological information available together with the site Assessment has determined that the area in question in favour of the Mining Permit application of the Aggregates, Silica, Sand and Decorative stones (Gemstones) commodities. There is no competition of land use since the area of application is largely uncategorised and vacant thus imposing an opportunity for exploration. The proposed mine will contribute the diversification of activities on the property.

The proposed Mining Permit area is on the portion of portion 15 of the farm Middelburg 231 IR, within the Victor Khanye Local Municipality, Mpumalanga Province. According to the Victor Khanye Integrated Development Plan (IDP;2017- 2021). Mining activities in the area are concentrated mainly on coal and silica. Importantly, there is a growing urgency to establish an equitable and realistic trade-off that maximizes the provincial benefits from mining and energy sectors while mitigating any environmental impacts. According to the MPGDS, the mining, petrochemicals, steel and forestry sectors are dominated by a few global-level companies, with relatively few job opportunities being created due to their intensive capital nature.

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

The proposed site earmarked for the mining of the Silica, Sand, Aggregate and Gemstones will entail the mining activities. Motau Mining Services' intention is to follow all legislative compliance provision regarding mineral extraction and finally open a small scale mining operation. The proposed site was identified as the preferred alternative due to the following reasons:

The proposed site earmarked for the mining of the applied commodities will include the pit. The proposed site was identified as the preferred alternative due to the following reasons:

- Although the area is virgin ground, it has minimal vegetation cover.
- The site offers the sought-after resource.
- The mining impacts can be contained to one area.
- Very little natural vegetation needs to be disturbed to establish the mining area as most of the area is bare land without no residents or agricultural activities.
- The mining area can be reached by an existing access road extending from the provincial road west of the property (R42). No new road infrastructure needs to be constructed.
- The open cast mining has been identified as the most effective method to produce the desired resources. Due to the remote location of the pit, the potential impacts on the surrounding environment, associated with open cast mining, is deemed to be of low significance.
- The general waste produced on-site will be contained in sealed refuse bins to be transported to the local municipal landfill site.
- As equipment maintenance and servicing will be done at an off-site workshop, the amount of hazardous waste to be produced at the site will be minimal and mainly as a result of accidental oil or diesel spillages.
- Contaminated soil will be removed to the depth of the spillage and contained in sealed bins until removed from site by a hazardous waste-handling contractor to be disposed of at a registered hazardous waste handling site.

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 portion of portion 15 of the farm Middelburg 231 IR is located within the Victor Khanye local municipality under the Delmas magisterial district, Mpumalanga Province. The site is preferred for the proposed mining because it provides the minerals applied. The area is located approximately 1.82 km from the nearest community (Botleng). There are no activities currently occurring on the proposed farm.

2.8.2 Preferred activities

The mining method proposed involves open cast extraction of Sand, Aggregates, Silica & Decorative stones (Gemstones) from a pit to be established on virgin ground. The topsoil and overburden soil will be stockpiled and reserved for rehabilitation. Drilling and blasting activities will be implemented to break the hard rock. The proposed mining activities is intended to exist for a period of 2 years, therefore temporary structures will be erected on site for the operation.

2.8.3 Technology alternatives

There are no technological alternatives to the proposed mining activities. Open cast mining is the only method that will be used.

2.9 Details of the development footprint alternatives considered

With reference to the site plan provided as Appendix 1: **Curriculum Vitae of the EAP**

Appendix 2 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

Motau Mining Services identified the need for Sand, Silica, Aggregates and Gemstones due to the demand in land use for infrastructure, housing, recreation and industrial building activities. In this light, the applicant identified the proposed areas as the preferred and only viable site alternative. From desktop study conducted on this area, it is known that this area contains the resource being sought. The opencast mining method will be considered to maximize the extraction and use of the resources from the area. Truck and shovel operations will be used. Haul trucks will be used for the hauling of the mined material through haul roads that will be constructed in the area. These mining methods are standard practice for opencast mining operations as stipulated above.

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

2.9.1 Open cast mining (preferred alternative) vs. underground mining

- The open cast mining method is used when deposits of commercially useful minerals or rock are found near the surface, where the overburden is relatively thin or the material is structurally unsuitable for tunnelling.
- Underground mining is used where the mineral occurs deep below the surface and the overburden is thick.
- Open cast mining has been identified as the most cost-effective method to produce the desired resources as it they found near the surface, with only a narrow layer of overburden that needs to be removed.
- The geology of the area and depth of the commodities to be mined is structurally unsuitable for tunnelling.
- The open cast mining method will not produce any residual waste to be disposed of. Due to the remote location of the project the potential impacts on the surrounding environment, associated with open cast mining, is deemed to be of low significance.

It is proposed that all mining related infrastructure will be contained within the boundary of the mining area.

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 in-pit crusher plant, temporary weigh bridge and chemical toilet, with off-site vehicle and equipment servicing (at the applicant's existing workshop). 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.
- Permanent infrastructure will entail the construction of an office building with ablution facilities, installation of a septic tank to be connected to the ablution facilities, installation of a permanent weigh bridge and permanent crusher plant.
- 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 overall extent 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

- The tar road extends from the provincial road R42. This road will be used to access and exit the permit area. This road links with the provincial road R50 and the National

road N12 which will also be used during mining activities for the transportation of mined resources upon approval from the SANRAL.

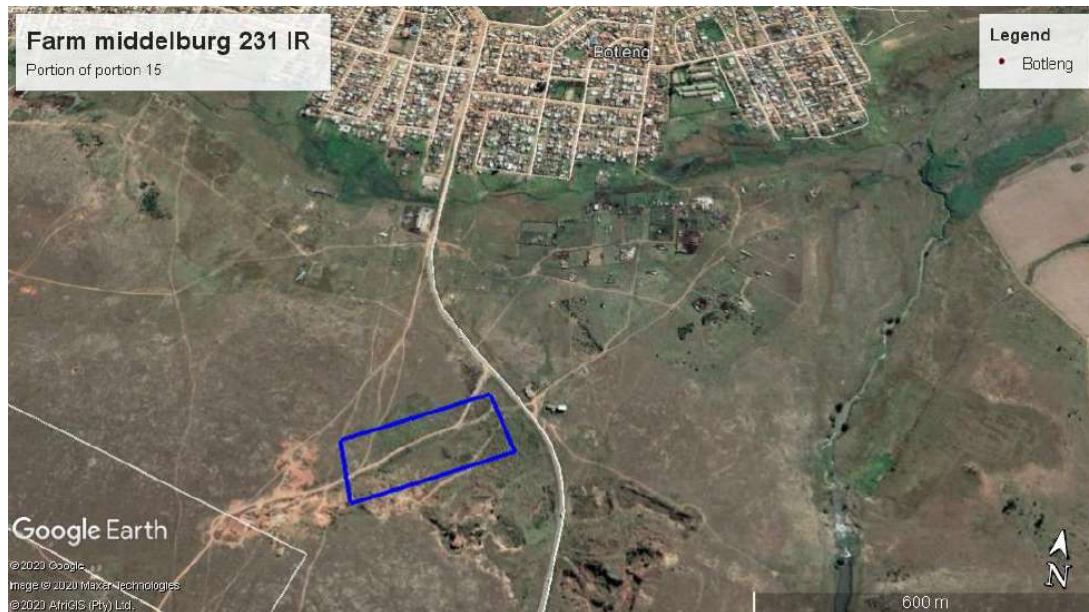


Figure 9: Google Earth view map showing access road



Figure 10: Picture showing the access road to be used

2.9.4 No-go alternative

The no-go alternative entails no change to the status quo and should therefore is the real

alternative that should be considered. The Sand, Silica, Aggregates and Decorative stones to be mined at the site will be used for infrastructure, housing, recreation and industrial building activities. If the no-go alternative is implemented, the applicant will not be able to expand the mine to utilise the mineral present in the area. This could have major impacts on aspects such as transporting of material to construction site far off the mining areas, cost-effectiveness of the material, impacts on road and roads users due to long distance hauling of minerals 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 and/or construction contractors.
- The application, if approved, would allow the applicant to utilise the available Sand, Silica, Aggregate, and Decorative stones 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.

The stakeholders and I&APs were informed of the project by means of communication/notification emails with Background Information Documents attached (on the 11th of August 2020), see Appendix 4. Stakeholders were invited to register as Interested and Affected Parties for the proposed mining permit application project and raise comments/ concerns that they might have regarding the project. The following Government Departments /Local Municipality officials and others were engaged via emails and registered letters:

- Victor Khanye Local Municipality
- Department of Water and Sanitation
- Department of Agriculture, Forestry and Fisheries
- Department of Environmental Affairs
- Mpumalanga Tourism and Parks Agency

- Department of Land Restitution Commission
- Department of Rural Development and Land Reform

Site notices were placed on areas around the boundaries of the project area and in nearest town, Botleng, during the site assessment on the 19th August 2020. A newspaper was also published 07th August 2020 (see Figure 11 notifying all Interested and Affected Parties to register and comment on the proposed project) . An erratum was placed on the 21st of August 2020 correcting the description on the initially published newspaper (see Figure 12).

Landowners for the proposed farm were identified through the Department of rural Development and Land reform, Mr George Mhlanga, who assisted since the deed search conducted in this office did not provide the results for the search of the title deed details of the portion 15 of the farm Middelburg 231 IR. The outcomes from Mr Mhlanga showed that the proposed farm portion has not yet been registered at the deed office, the piece of land is still under the owner of portion 4 which, according to the deed search conducted is the Plaaslike Oorgangsraad Van Delmas with Title deed number; T31275/1993, see Figure 13.

Jag ja, maar selfde dag terug

Thia Botha

Die Departement van Omgewing, Bosbou en Visserie kondig op 28 Julie nuwe regulasies rondom jag aan. Luidens die wysings wat deur die departement aangebring is en in die Staatskoerant gepubliseer is, word jagers verbied om oor die grense te reis vir jagdoeleindes.

Die voorsiening van akkommodasie vir jagers word ook nie toegelaat nie. Jy mag slegs binne jou eie provinsie jag, met die primêre doel om vleis te verkry. Dan ook slegs tussen 04:00 soggens en saans 21:00 wanneer jy weer terug by jou huis moet wees. Hoe is hierdie regulasie enigsin prakties moontlik, vra die jagers.

Vir die wildboerdryf wat reeds baie skade gely het as gevolg van die inperkings, kom hierdie as 'n groot skok. Met die vorige afkondiging wat jag weer wettig gemaak het, het verskeie wildboere die jageseisoen tot en met einde Augustus vol bespreek ten einde op te maak vir 'n groot gedeelte van die seisoen wat hulle weens die inperking verloor het.

Volgens 'n plaaslike jagter is dit onmoontlik om teen 04:00 soggens te begin jag. Jy bok te skiet, die vol te verwyder en dit te verwerk. "Die nuwe afkondiging is absoluut belaglik.

En ek moet weer 21:00 terug by die huis wees, terwyl die plaas wat ek bespreek het twee en 'n half ure van my woning is. Vir alle praktiese doeleindes is jag dan weer toe vir ons jagers. Wat van die deposito wat ek reeds betaal het om my plek te bespreek?"

Intussen dui die wysiging deur die departement aan dat jag met die doel om troppe uit te dun om te verseker dat veld selfonderhoudend bly, wel toegelaat word, maar ook met die voorwaarde dat geen reis oorgrense toegelaat word nie. TLU SA dring aan op 'n verduideliking oor die gewysigde regulasies. "Dit is uiters onverskillig en irrasioneel om sulke regulasies te publiseer. Dit is nog 'n ekonomiese slag vir wildboere wat reeds groot verliese gely het as gevolg van die regulasies van die eerste weke van die inperking. Ons lede het reeds deposito's ontvang en voorbereidings getref vir jagers wat van ander provinsies by hulle sou gaan jag. Die risiko vir die verspreiding van Covid-19 op verafgeleë gebiede, waar min mense met mekaar in aanraking kom, is

minimaal," sê mnr Louis Meintjies, die president van TLU SA.

"Ons versoek die departement en regering om 'n verduideliking te verskaf waarom hierdie regulasies skielik gewysig is. Boere is reeds baie ontevrede oor hoe die inperking hulle beïnvloed, terwyl die regering op hulle staatmaak om voort te gaan om voedsel te produseer. Die dag sal kom wanneer boere nie meer in hierdie vraag kan voldoen nie," sê Meintjies.

Sous vir baie ander bedrywe en besighede in Suid-Afrika dui die verandering aan die regulasies binne vlak drie van die inperking nie op 'n baie rooskleurige prentjie nie.



Production Operators and Warehouse General Worker (3 Months Contract work)

Based in Bronkhorstspuit

Salary: R23.32 p/h

Work shifts: 12 hour day or night shift

Minimum requirements

- * Grade 12 with Mathematical Literacy at least an E symbol. Science will be an advantage.
- * Previous experience in Production/Warehouse environment will be an advantage.
- * Must be conversant in English (spoken and written).

Skills:

- * Basic technical, mechanical and numerical understanding.
- * Problem solving and attention to detail.

Duties:

Production operators: Operating manufacturing machines, Ensuring quality of goods, keeping factory floor clean.

Warehouse workers: General warehouse duties, packing of completed products and picking and loading goods for transportation. Keeping warehouse clean.

Applications must be sent to operation.recruit1@gmail.com



NOTICE OF PUBLIC PARTICIPATION FOR MINING PERMIT AND ENVIRONMENTAL AUTHORIZATION APPLICATION

ISIZULU

Isizotho sengqibo yokulandela kungelo Leselole ngokulandela Wersikumbiwa kanye Nezimbini (i-MPRDA) (Imithetho 28 ka 2002) ngokuthola iSand, Aggregates, Silica ne Decorative stones (Gemstones) ku Nkweny-15 we Farm I-Middelburg 231 IR kanye ne ezinye i-13 we Farm I-Leeuport 205 IR, eMantlonyeni Magisterial District Delmas, eMantlonyeni sase Mpumalanga.

ISIMEMO SOKUPHAWULA KOKUVEZA IMIBONO MAYELANA NALE APPLICATION

Ngaleso sikhatshi kunikwe isizotho ngokulandela Wersikumbiwa phansi kanye nePetroleum Development Act (MPRDA) (Imithetho 28 ka 2002) kanye nemigomo ye-EIA 2014, ebhekise ngaphansi kvesizotho sikahulumeni Nombolo 982 kaGazethi Nombolo 3822 yomhla zyi-4 kaZibandela 2014, ukuthi kuthathwele ngaphakathi 7 Eptreli 2017 ukuthi i-Motau Mining Services ifike isizotho selungelo lokuthola i-Umthetho phansi kwale minerali esizotho ngokulandela nge-DMR Ref: MP 30/5/1/3/2 (12552) MP.

Ngeminye yeminye ye-EIA, kakhulukazi inqubo yokubamba igaba kakhulukazi kule phoyethi ehlongozayo, Amagumbi Aqhuthekoyo Natintekayo (iSAPS) ayamekanywa ukuba abhalise futhi alithe ngomusa noma yikuphi ukuphawula noma ukubhalisa ukufikelela kule mizamo. Deshney Napoko kungakadluli umhla ka 07th September 2020, kusethenzwe imininingwane yokuthumana enikezwe ngaphansi.

Umpheleli ubizo futhi umanyano ukuthi ubhekise futhi uphawule ngomhla otyisweleko Wokuthola Okuyisicelo kanye ne-EIA. Umbizo otyisweleko we-EIA ukutholala ukuthi ubhekise futhi alithe ngomusa noma yikuphi ukuphawula noma ukubhalisa ukufikelela kule mizamo. Deshney Napoko kungakadluli umhla ka 07th September 2020, kusethenzwe imininingwane yokuthumana enikezwe ngaphansi. Deshney Napoko kungakadluli umhla ka 07th September 2020, kusethenzwe imininingwane yokuthumana enikezwe ngaphansi.



Singo Consulting (Pty) Ltd

Office No. 16, First Floor (South Block),
Corridor Hill Crossing, 9 Langa Crescent,
Corridor Hill, eMakaleni (Witbank), 1040
Tel: 013 692 0041
Cell: 072 116 1205
Fax: 086 514 4103
Email: deshey@singoconsulting.co.za
Email (Alt): admin@singoconsulting.co.za

ENGLISH

Notice of the Mining Permit Application Process as per the Minerals and Petroleum Resources Development Act (MPRDA) (Act 28 of 2002) by Motau Mining Services for the extraction of Sand, Aggregates, Silica & Decorative stones (Gemstones) on a Portion of portion 15 of the farm Middelburg 231 IR and portion of portion 13 of the farm Leeuport 205 IR, situated in the Magisterial District Delmas, Mpumalanga Province.

INVITATION TO COMMENT

Notice is hereby given in terms of the Mineral and Petroleum Development Act (MPRDA) (Act 28 of 2002) and EIA Regulations 2014, published in Government Notice No. 982 in Gazette No. 3822 of 4 December 2014, amended on 7 April 2017 that Motau Mining Services has applied for a Mining Permit for the above-mentioned minerals with DMR Ref: MP 30/5/1/3/2 (12552) MP.

As part of the EIA process, more especially the Public Participation Process for this proposed project, interested and Affected Parties (I&APs) are invited to register and kindly submit any comments or concerns to reach: Mr. Deshney Napoko by no later than the 07th September 2020, using the contact details provided below. The public is also invited to review and comment on the Draft Basic Assessment Report (BAR) and EMP. The draft BAR & EMP report will be available for review for 30 calendar days from the 08th September 2020 to the 08th October 2020. Due to risks associated with Covid-19 mass meeting will not be held, hand copies reports may not be made available at any public place or premises closed to the public, as contemplated in the regulation (Section 27(2) of the Disaster Management Act). Electronic copies will be made available upon request from Singo Consulting (Pty) Ltd, using the detailed EAP's contact's below, via emails; Dropbox link; Google drive; WhatsApp; etc.

For more information, to register as Interested or Affected Party, please contact:-



2682 Marokwane Street, Botlego,
Delmas, Mpumalanga, 2210
Tel No: +27 82 543 0677
Fax No: +27 86 5144 103
Cell No: +27 82 543 0677
Email: motaumining@gmail.com

NOTICE OF ENVIRONMENTAL IMPACT ASSESSMENT PROCESS FOR A

PROSPECTING RIGHT PUBLIC PARTICIPATION PROCESS On behalf of Bila Civil Contractors (Pty) Ltd REFERENCE NUMBER: GP30/5/1/1/2/1062PR AVAILABILITY OF BASIC ASSESSMENT REPORT FOR REVIEW

Notice is hereby given in terms of Section 24 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) read with Regulation 19 of the Environmental Impact Assessment (EIA) Regulations, 2014 (as amended) and Section 16 of the Minerals and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002), as amended by Section 12 of the MPRDA, 2008 (Act No. 49 of 2008) for a Prospecting Right.

Project Applicant: Bila Civil Contractors (Pty) Ltd

Project Location:

Farms: Farms Bynesport 335JR Portion 26 & 66; situated approximately 4 km South West of the town of Cullinan, situated within the Magisterial District of City of Tshwane, Gauteng Province.

Proposed Activities:

Bila Civil Contractors (Pty) Ltd has applied for a Prospecting Right in terms of Section 24 of the NEMA, 1998 read with Regulation 19 of the EIA Regulations, 2014 and in terms of Section 16 of the Minerals and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA), as amended by Section 12 of the MPRDA, 2008 (Act No. 49 of 2008), for the environmental authorisation of prospecting activities for the following minerals: Aggregate, Diamond & Potash, on the above-mentioned farms. The environmental authorisation application was lodged with Department of Mineral Resources (DMR): Mine Environmental Management as the Competent Authority. Prospecting activities will enable Bila Civil Contractors (Pty) Ltd to determine if economically viable mineral deposits exist within the area being applied for.

ENVIRONMENTAL IMPACT ASSESSMENT PROCESS

The environmental authorization (EA) application process for prospecting activities is required to be supported by a Basic Assessment (BA) carried out in terms of EIA Regulations, 2014. Tshiko Environmental Consulting (Pty) Ltd has been appointed as the Independent Public Participation Consultants to conduct the public consultation, as part of the environmental impact assessment process. Land owners, lawful occupants and interested & affected parties (I&APs) are invited to participate in this proposed project by registering as an I & AP and forwarding comments or concerns relating to the project to Tshiko Environmental Consulting (Pty) Ltd. A background information document (BID) can be obtained from Tshiko Environmental Consulting (Pty) Ltd upon request.

Draft Basic Assessment Report Available for Public Review: The report is available for a 30-day review period, from the day of publication. You are invited to request the report at the address below:

Comments can be made as written submission via post or email. To obtain further information or submit a comment, please submit your name, contact information, if you are an interested or affected party to the project to:

Tshiko Environmental Consulting (Pty) Ltd
121 Witsinkhout Road, 3 Sondene Gardens
Cell: 076 341 6534
Fax: 086 535 6320
Email: mrangiri@vodmail.co.za / mukundigis@gmail.com

Figure 11: Proof of newspaper published in the Streeknuus/news Delmas (07 August 2020)

Farm List

Date Requested 2020/08/28 11:17
 Deeds Office MPUMALANGA
 Registration Division IR
 Farm Name MIDDELBURG
 Farm Number 231
 Remaining Extent NOT SELECTED

PORTION LIST				
Portion	Owner	Title Deed	Registration Date	Purchase Price (R)
0	AZORIWEB PTY LTD	T12824/2019	2019/12/03	R2800000.00
1	ANTIOCH INITIATIVE	T14263/2008	2008/09/10	R1318718.00
4	PLAASLIKE OORGANGSRAAD VAN DELMAS	T31275/1993	1993/04/27	R0.00
5	MUN BOTLENG	T40620/1994	1994/06/09	R109226.00
8	MBENEKAZI TAWEN THAMSANQA	T95790/2005	2005/07/28	R80000.00
9	MBENEKAZI TAWEN THAMSANQA	T337065/2007	2007/12/13	R50000.00
11	BERG ANDRE VAN DEN	T13966/1992	1992/03/03	R100000.00
12	*** NO LONGER EXISTS - SEE ENDORSEMENTS ***		-	
13	LEEUWENKAMP EDUARD JOHANNES	T15765/1990	1990/03/09	R129000.00
14	MUN DELMAS	T37087/1983	1983/09/07	R0.00
16	*** NO LONGER EXISTS - SEE ENDORSEMENTS ***		-	
17	*** NO LONGER EXISTS - SEE ENDORSEMENTS ***		-	


DISCLAIMER


This report contains information gathered from our suppliers and we do not make any representations about the accuracy of the data displayed nor do we accept responsibility for inaccurate data. WinDeed will not be liable for any damage caused by reliance on this report. This report is subject to the terms and conditions of the [WinDeed End User License Agreement \(EULA\)](#).

Figure 13: Deed search




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 in this column, and Mark with an X where those who must be consulted were in fact consulted.	Date Comments Received	Issues 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.
<u>AFFECTED PARTIES</u>				
Landowner/s	X			
 <p>Botleng Municipality Diane Bath: Ward 8 councillor 1. themba.bonafide@gmail.com 2. Thabitha.matladi@victorkhanye.lm.gov.za</p>		02/09/2020 (Call & email) Diane Bath forwarded the consultation to the officials she felt are relevant particularly for the project and the area of Application		Appendix 3

3. lindaz@victorkhanyelm.gov.za					
4. sizwes@victorkhanyelm.gov.za					
Lawful occupier/s of the land					
Landowners or lawful occupiers on adjacent properties					
	x				
Municipal councillor					
Municipality	X				
 <p>Botleng Municipality Diane Bath: Ward 8 councillor 1. themba.bonafide@gmail.com 2. Thabitha.matladi@victorkhanyelm.gov.za 3. lindaz@victorkhanyelm.gov.za</p>		02/09/2020 (Call & email)	Diane Bath re-sent the consultation to the officials she felt are relevant particularly for the project and the area of Application		Appendix 3

4. sizwes@victorkhanyelm.gov.za					
Secmayor@victorkhanyelm.gov.za	X			Consultation email was sent with BID attached (11/08/2020 via email)	Appendix 3
Organs of state (Responsible for infrastructure that may be affected Roads Department, Eskom, Telkom, DWA e					
 Eskom Wayleavesmou@eskom.co.za	X			Consultation email was sent with BID attached (11/08/2020 via email)	Appendix 3
SANRAL  Barkhizenr@nra.co.za 'oliverj@nra.co.za'	X			Consultation email was sent with BID attached (11/08/2020 via email)	Appendix 3
Dept. of Agriculture, Forestry & Fisheries	X			Consultation email was sent with BID attached (11/08/2020 via email)	Appendix 3

 agriculture, forestry & fisheries Department: Agriculture, Forestry and Fisheries REPUBLIC OF SOUTH AFRICA Rhulani Chavalala 27 Brown Street 2nd Floor Office no B1 Nelspruit Tel: 013 754 0729 Cell: 078 608 3909 Email: RhulaniC@daff.gov.za					
Kenneth Mavhunga Email: KennethMAV@daff.gov.za	X			Consultation email was sent with BID attached (11/08/2020 via email)	Appendix 3
 Yuza Chabalala Cell: 060 583 4470 Email: Yuza.Chabalala@transnet.net	X	17/08/2020 (Via email)	Attention drawn to the section 48 (1) of the MPRDA (Act 2002) and the Regulation 17 (6) (a) of the Mine Health and Safety Act, 1996.	Railway line is located approximately 3.71 km South of the project area. However, should pipelines/ Transnet infrastructure be located on site during mining activities on any stage, Transnet Freight Rail will be consulted immediately.	Appendix 3 and Appendix 7
Communities					
Dept. Land Affairs					
 agriculture, rural development, land & environmental affairs MPUMALANGA PROVINCE REPUBLIC OF SOUTH AFRICA	X			Consultation email was sent with BID attached (11/08/2020 via email)	Appendix 3

Themba Mkhonto Tel: 013 655 1000 Email: Themba.mkhonto@drdlr.gov.za					
Vusi Khoza Vusi.Khoza@drdlr.gov.za	X			Consultation email was sent with BID attached (11/08/2020 via email)	Appendix 3
Petruscha.Lindoor@drdlr.gov.za	X			Consultation email was sent with BID attached (11/08/2020 via email)	Appendix 3
George Mhlanga General Survey Email: George.Mhlanga@drdlr.gov.za		(04/09/2020) Via email	Portion 15 is not yet registered at the deeds office and is still under the owner of Portion 04 which is the Victor Khanye Local Municipality	It has been acknowledged.	Appendix 3
Traditional Leaders					
There are no traditional leaders preceding the area					
Dept. Environmental Affairs					
 Tshilidzi Ramavhona Email: TRamavhona@environment.gov.za	X			Consultation email was sent with BID attached (11/08/2020 via email)	Appendix 3
Other Competent Authorities affected					

<p>Department of water & sanitation</p> 				<p>Consultation email was sent with BID attached (11/08/2020 via email)</p>	<p>Appendix 3</p>
<p>Mbulaleni L</p> <p>Email: MbulaleniL@dws.gov.za</p>	X	<p>27/07/2020</p> <p>(Via email)</p>	<p>Provide BAR for comments</p>	<p>Please note that BAR & EMPr is being compiled and shall be shared with you once available.</p>	<p>Appendix 3</p>
<p>molotom@dws.gov.za</p>	X			<p>Consultation email was sent with BID attached (11/08/2020 via email)</p>	<p>Appendix 3</p>
 <p>Mervyn Lotter</p> <p>Email: mervyn@intekom.co.za</p>		<p>05/10/2020</p> <p>(Via email)</p>	<p>Find maps indicating the terrestrial and freshwater sensitivity.</p> <p>The approved housing developments.</p> <p>One is not allowed to mine within 250 m from a residential area.</p>	<p>The Victor Khanye local municipality shall be consulted regarding the above matters.</p>	<p>Appendix 3</p>
<u>INTERESTED AND AFFECTED PARTIES</u>					

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

The basal Stratigraphy of the Karoo Supergroup comprises the Dwyka Group which is a Late Carboniferous to Early Permian (~320Ma) sequence of glacial and periglacial sediments including diamictite, till moraine, conglomerate, sandstone, mudstone and varved shale. The Dwyka group is overlain by the Eccca Group which is an Early to Late Permian (~260 Ma) sequence composed of sandstone, siltstone, mudstone, deposited in a terrestrial basin on a gently subsiding shelf platform. The Eccca Group is overlain by the Beaufort Group, which is Early Triassic (~260 to 210 Ma), comprising multi-colored mudstone and sandstone deposited in a fluvial environment.

The Molteno Formation rests unconformably on the Beaufort Group and comprises Late Triassic (~210 Ma) coarse, immature sandstone with minor argillaceous layers derived from braided streams. This in turn is overlain by the Elliot Formation consisting of red mudstone and sandstone and the Clarens Formation comprising Aeolian sandstone. At the top of the Karoo Supergroup stratigraphy is the Drakensburg Group, which comprises Early to Middle Jurassic (~180 Ma) flood basalts.

According to the 2628 East Rand 1:250 000 geology series map the site is situated on Permian (245 000 – 290 000 million years) sandstones of the Vryheid Formation of the Eccca Group, and Karoo Supergroup. Jurassic (145 000 – 208 000 million years) dolerite sills intruded into the older sediments through vertical feeder dykes. Quaternary surficial deposits of alluvium and ferricrete can be found throughout the surrounding area.

The Eccca Group, which is part of the Karoo Supergroup, comprises of sediments deposited in shallow marine and fluvial-deltaic environments with coal accumulated as peat in swamps and marshes associated with these environments. The sandstone layers are normally reasonable aquifers, while the shale trends to act as aquitards. Several layered aquifers perched on the relative impermeable shale are common in such sequences. The Dwyka Formation comprises consolidated products of glaciations (with high amounts of clay) and is normally considered have impermeable qualities. The general horizontally disposed sediments of the Karoo Supergroup are typically undulating with a gentle regional dip to the south. The extent of the

coal is largely controlled by the pre-Karoo topography.

Abundant dolerite intrusions are present in the Ecca sediments. These intrusions comprise sills, which vary from being concordant to transgressive in structure, and feeder dykes. Although these structures serve as aquitards and tend to compartmentalize the groundwater regime, the contact zones with the pre-existing geological formations also serve as groundwater conduits. There are common occurrences of minor slips or faults, particularly in close proximity.

3.1.2 Local geology

The basement and Dwyka Group are unconformably overlain by the Vryheid Formation of the Ecca Group consisting mainly of sandstone and thinly laminated siltstone with subordinate mudstone and shale. The lithological units are variable in thickness. The dominant rocks of the Vryheid formation that can be found are sandstones together with subequal or subordinate mudrock/rhytmite.

The base of an idealized coarsening upwards deltaic cycle in the eastern part of the Vryheid formation consists of dark grey, muddy siltstone resulting from shelf suspension deposition in anoxic water of moderate depth. The Vryheid formation can be subdivided into a lower fluvial-dominated deltaic interval, a middle fluvial interval and an upper fluvial-dominated deltaic interval in the east. These subdivisions correspond approximately to the lower sandstone, coal zone and upper sandstones

Greenshields (1986) states that all four cyclothems exhibit aggressive phase where sedimentation occur red influvio-deltaic environments, followed by a transgressive phase where sedimentation was typical of both marine and non-marine transgressive shorelines. A seam is therefore associated with clastic successions comprising carbonaceous shale or siltstone, fine to coarse-grained sandstone and minor conglomerate (Cadle et al.1990)

The thickness of the Vryheid Formation generally thins towards the north, west and south for a maximum of 500 m. However, the marked variations in thickness can be witnessed in the northern and north-western margins of the basin where the formation rests directly on the uneven pre-Karoo topography. The Vryheid Formation can be subdivided into a lower fluvial-dominated deltaic interval, a middle fluvial interval and an upper fluvial-dominated deltaic interval in the east (Tavener-Smith et al., 1988a). These subdivisions correspond approximately to the "lower Silica Sandstones", "coal zone" and "upper Silica Sandstone" of Blignaut and Furter (1940). The Vryheid formation is characterised by different lithofacies, which are mainly arranged in upward-coarsening cycles, which are essentially of deltaic origin. Therefore, not in all Vryheid formation there is coal which is encouraging the applicant to mine the rock which is prospected in the applied farm.

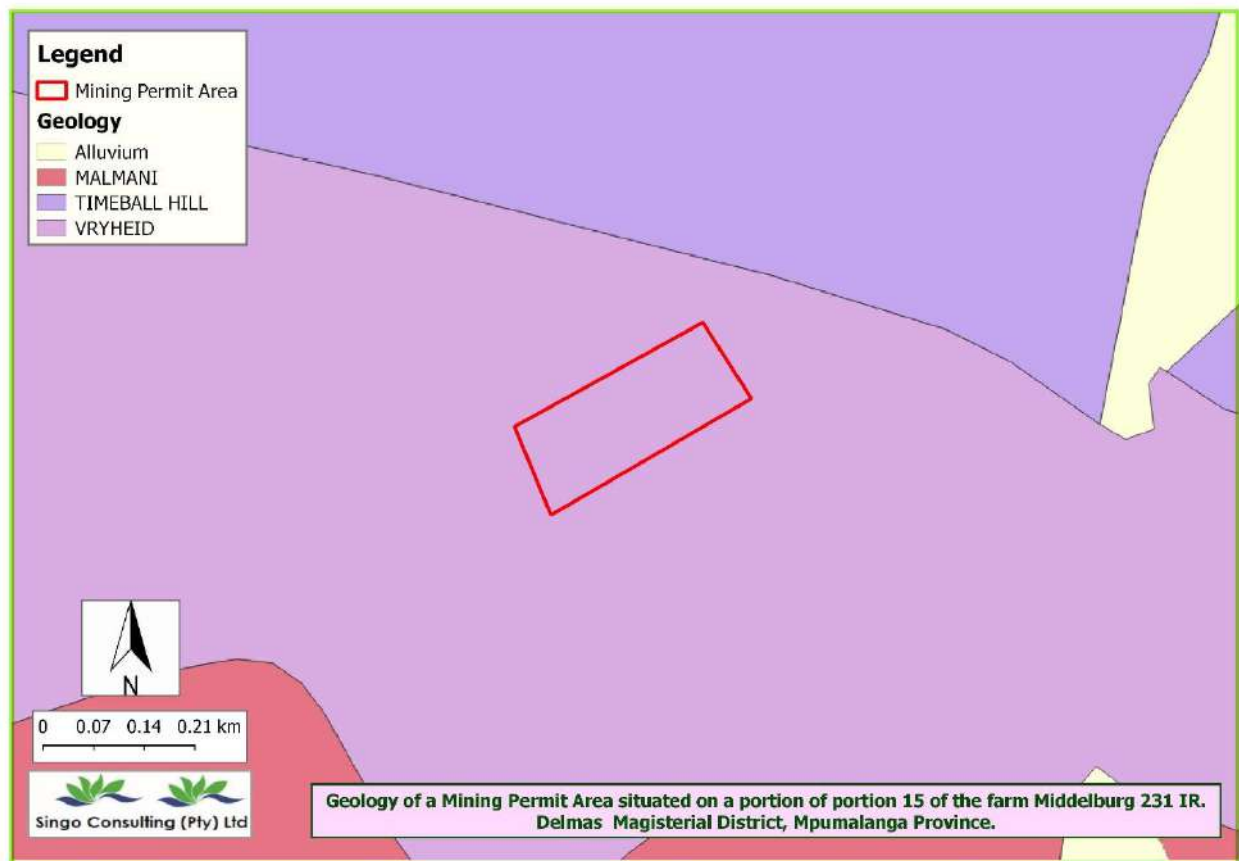


Figure 14: Geology map of the project area

3.1.3 Flora

The area falls in the Grassland Biome of South Africa (Rutherford & Westfall, 1986). The Grassland Biome is found on the high central plateau of South Africa, and the inland areas of Kwazulu-Natal and the Eastern Cape. The topography is mainly flat and rolling, but includes the escarpment itself. The altitude covered by this biome varies from near sea level to 2 850 m above sea level. The vegetation type consists of a Moist Sandy Highveld grassland.

Grasslands are dominated by a single layer of grasses (Rutherford & Westfall, 1986). The amount of cover depends on rainfall and the degree of grazing. Trees are absent, except in a few localized habitats. Geophytes are often abundant. Frost, fire and grazing maintain the grass dominance and prevent the establishment of trees (Rutherford & Westfall, 1986).

From the screening report generated, the development footprint environmental sensitivities have been identified. These sensitivities include the Agricultural theme sensitivity, the Animal species theme sensitivity and the Plant species theme sensitivity, to name a few. This report allows the study of the environmental sensitivities for a chosen site with regard to a proposed activity or development. The Agricultural theme sensitivity displayed the sensitivity of the area to be of high sensitivity with a land capability classification of 09. Moderate-high/10. Moderate-high.

Another sensitivity theme that was observed from the screening report include the plant species theme sensitivity. This theme showed a footprint of medium sensitivity on the proposed mining area. The features on this footprint include the *Brachycorythis conica* subsp. *transvaalensis*. The *Brachycorythis conica* subsp. *transvaalensis* which is endemic to South Africa and is highly distributed along the Gauteng, Limpopo and Mpumalanga provinces ranging from Waterberg to Balfour. This species also has a decreasing population threatened by ongoing habitat loss to urban expansion in the Gauteng and Mpumalanga provinces. The *Brachycorythis conica* subsp. *transvaalensis* is found in the terrestrial ecology with Gold Reef Mountain Bushveld, Waterberg Mountain Bushveld and the Loskop Mountain Bushveld as some of the habitats that accommodate this type of plant species.

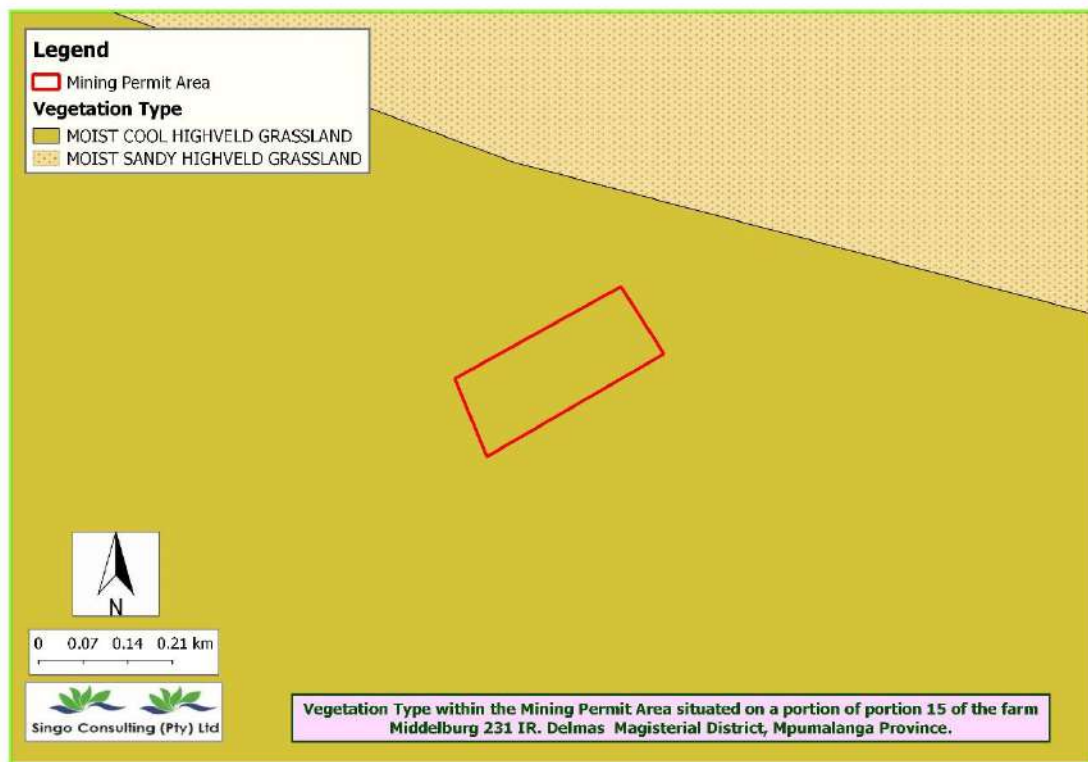


Figure 15: Vegetation type map of the proposed project area



Figure 16: pictures showing the vegetation observed on site during site assessment

3.1.4 Fauna

The fauna at the site will not be impacted by the proposed processing activity, as they will be able to move away from or through the site unharmed. Workers must be educated and managed to ensure that no fauna at the site is harmed. No fauna was observed in the study area during the site visit, instead cow dung was observed which implies that the study area is utilised by cattle grazing. Upon commencement of the proposed mining activities, the processing area will be fenced off to prevent livestock, such as cattle and sheep, from wandering into the work areas. From the screening report generated on the National screening tool, the animal species theme sensitivity map showed the proposed area to be of low sensitivity.



Figure 17: Picture depicting cow dung observed on site

MAP OF RELATIVE ANIMAL SPECIES THEME SENSITIVITY



Figure 18: Map showing the Animal species sensitivity of the project area (screening report)

3.1.5 Biodiversity

Despite the fact that the province of Mpumalanga is regarded as having a high degree of biological diversity and includes three centres of endemism and one proposed centre of endemism, less than a quarter of the land falls within formally protected areas (Emery et al, 2002). Although significant areas of the province are protected in private game and nature reserves, the level of protection and the appropriateness of management applied varies widely from property to property and from owner to owner. Grasslands collect rain water by reducing immediate runoff and thus erosion, they hold the water as ground water or in wetlands and release it slowly throughout the year (including the dry season) through seepage zones.

The proposed project area falls within the Critical Biodiversity Area (CBA); Optimal (as according to the Biodiversity map developed through the GIS system, Figure 19) . The CBA can be defined as the area required to meet the biodiversity targets for ecosystems, species and ecological processes as identified in a systematic biodiversity plan. The CBA; Optimal area is located as part of the most efficient solution to meet biodiversity targets. This area therefore maintains the natural state of the area with no loss of ecosystems, functionality or species. From the screening report generated on the National Screening tool, the terrestrial biodiversity theme sensitivity showed the footprint environmental sensitivity to be very high with features including the Critical Biodiversity Area 2, vulnerable ecosystem and focus areas for land-based protected areas expansion.

According to the Victor Khanye Local Municipality IDP (2017-2021), Victor Khanye Local Municipality does not host many threatened flora, with only five Red Data plant species having been recorded in the municipal area. A number of small isolated pockets considered to be significant and important biodiversity value are however found throughout the municipality area. Notably, there are no 'irreplaceable' hotspots in the Victor Khanye Municipality. However, there are 'highly significant' patches in terms of biodiversity, namely the north-eastern corner of the Municipality, the north-western corner, around Delmas, and finally a patch in the south of the municipal area. Furthermore, there are concentrations of 'important and necessary' biodiversity, namely the north-western block, the north-eastern block, the area east of Argent, and the area along the southern municipal boundary. Conserving these areas is of extreme importance as Victor Khanye is particularly threatened with ecosystem collapse.

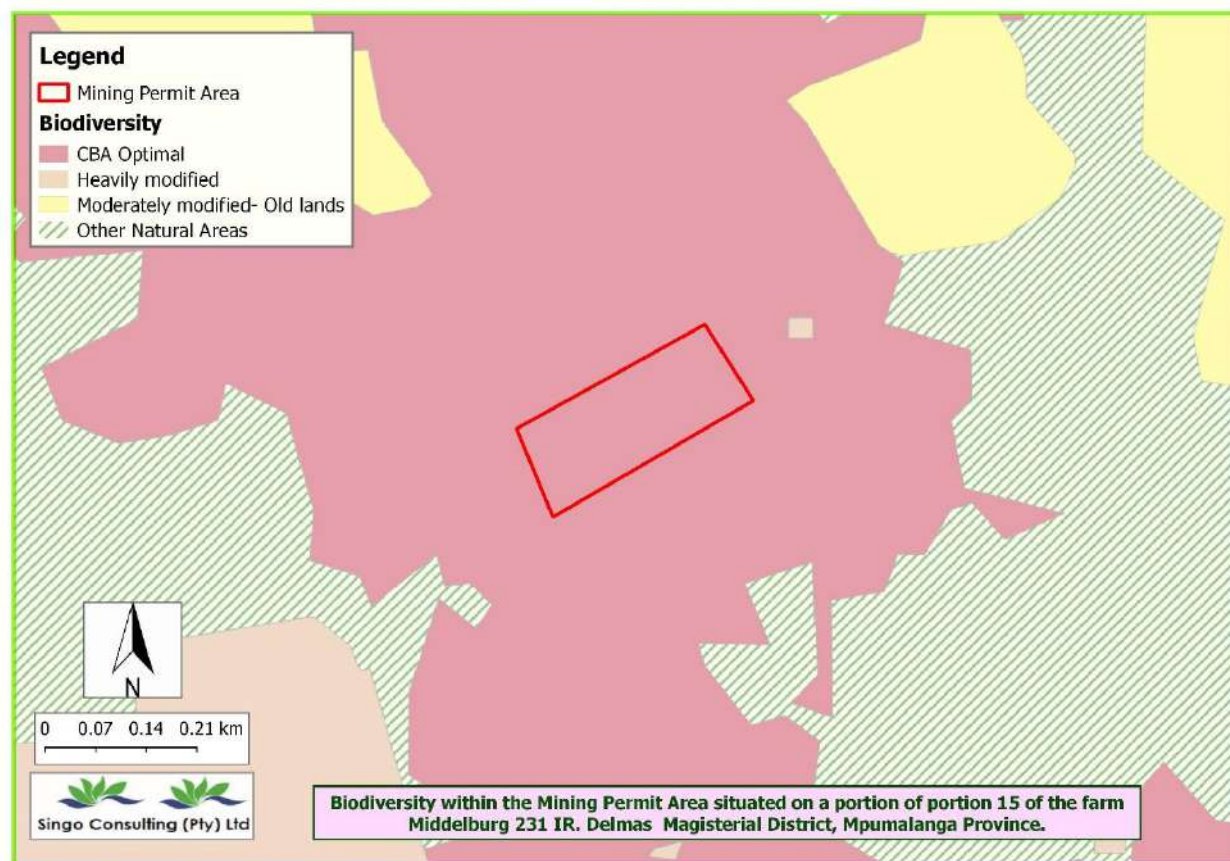


Figure 19: Biodiversity map of the project area

3.1.6 Soil

The area consists of freely drained structureless soil that is confirmed on a soil map by GIS specialist. This type of soil is characterized by sand, red soil that is less productive due to the dominance of sand soils that has severe limitations which minimize crop selection or require special management practices: soils and diverse areas have limitations that restrict commercial plant production and restrict their use to recreational, wildlife or esthetic purposes. Some of the depicted structureless soils are, red apedal soil, yellow brown apedal soils as well as plinthic soils. Large volumes of soil need to be stripped and stockpiled for later use in mine site rehabilitation especially from the stockyards.

Red apedal soils

These type of soils have a structure that is weaker than moderate blocky or prismatic in the moist state. The B horizons that have more or less uniform colours, falling within the range defined as red and that in the moist state, lack well-formed peds other than porous micro-aggregates, qualify as red apedal. The concept of these macroscopically weakly structured or structureless materials embraces that kind of weathering that takes place in a well-drained oxidizing environment to produce coatings of iron oxides on individual soil particles (hence the diagnostic red colours) and

clay minerals dominated by non-swelling 1:1 type. These soils therefore do not have alluvial or Aeolian stratifications.

Yellow apedal soil

This type of soil does not have grey colours in the dry state as defined for the E horizon. Although colour must be substantially uniform, some variability is permitted, for example mottles or concretions which are insufficient to qualify the horizon as a diagnostic plinthic B, faunal reworking may also result in acceptable colour variegations. Does not have alluvial or Aeolian stratifications and directly underlies a diagnostic topsoil horizon or an E horizon.



Figure 20: Project area soil type

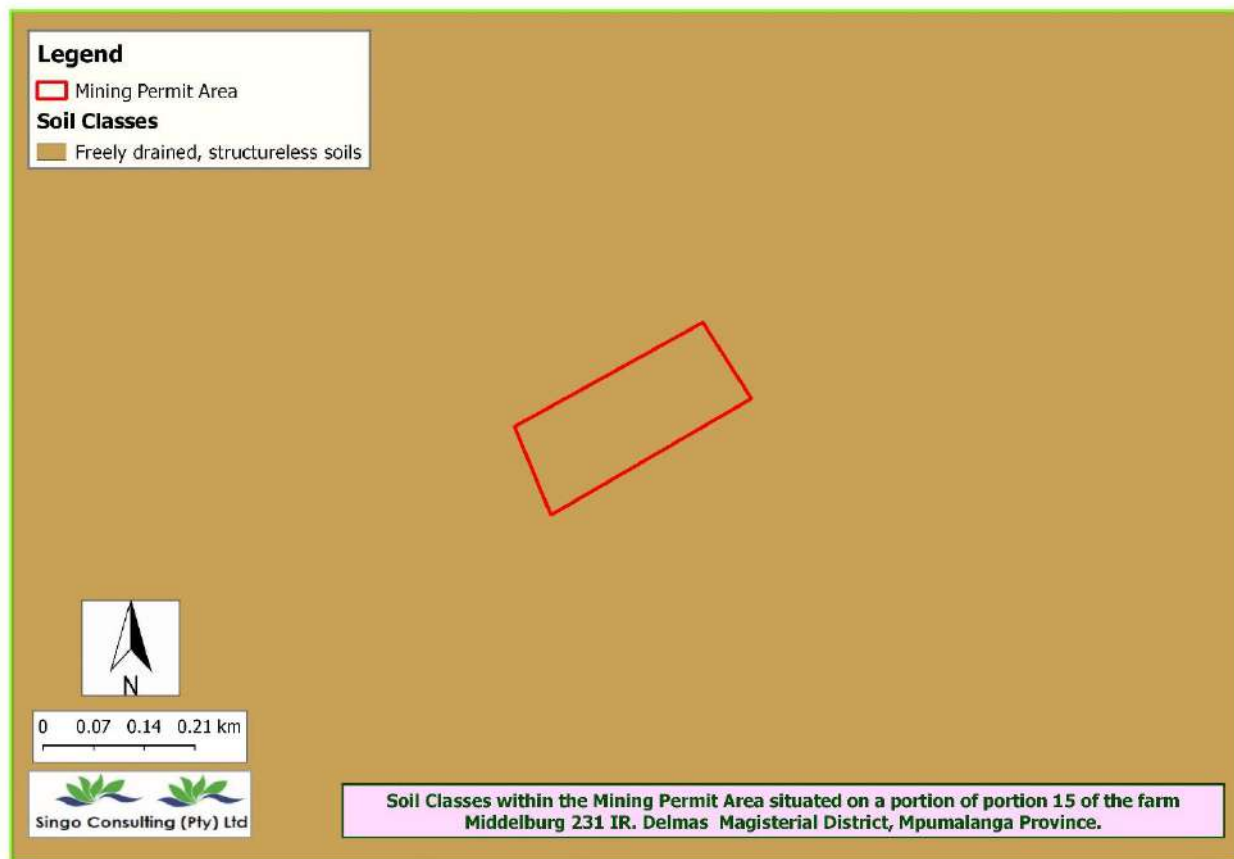


Figure 21: Project area soil classes map

3.1.7 Surface and ground water

3.1.7.1 Surface water

The proposed mining permit area is located within the Upper Olifants Catchment of the Water Management Area (WMA). The main quaternary catchment is B20A. The total catchment area of B20A is 838.8 square meters, with a net Mean Annual Rainfall (MAR) of 40, 00 million cubic meters and Mean Annual Precipitation (MAP) of 669 millimetre (mm), see Figure 22.

There is a channelled valley-bottom wetland within 2km of the radius of the mining permit area. However, there are no streams/rivers observed within the mining permit area. Therefore, it is not expected for the activities to have an impact on the streams and wetlands. However, effective storm water management should be implemented to ensure sound handling of the quality and quantity of runoff water being discharged into a land or water area. A hydrological study has been conducted for the proposed mining area to certify proper management of surface water within the project area.

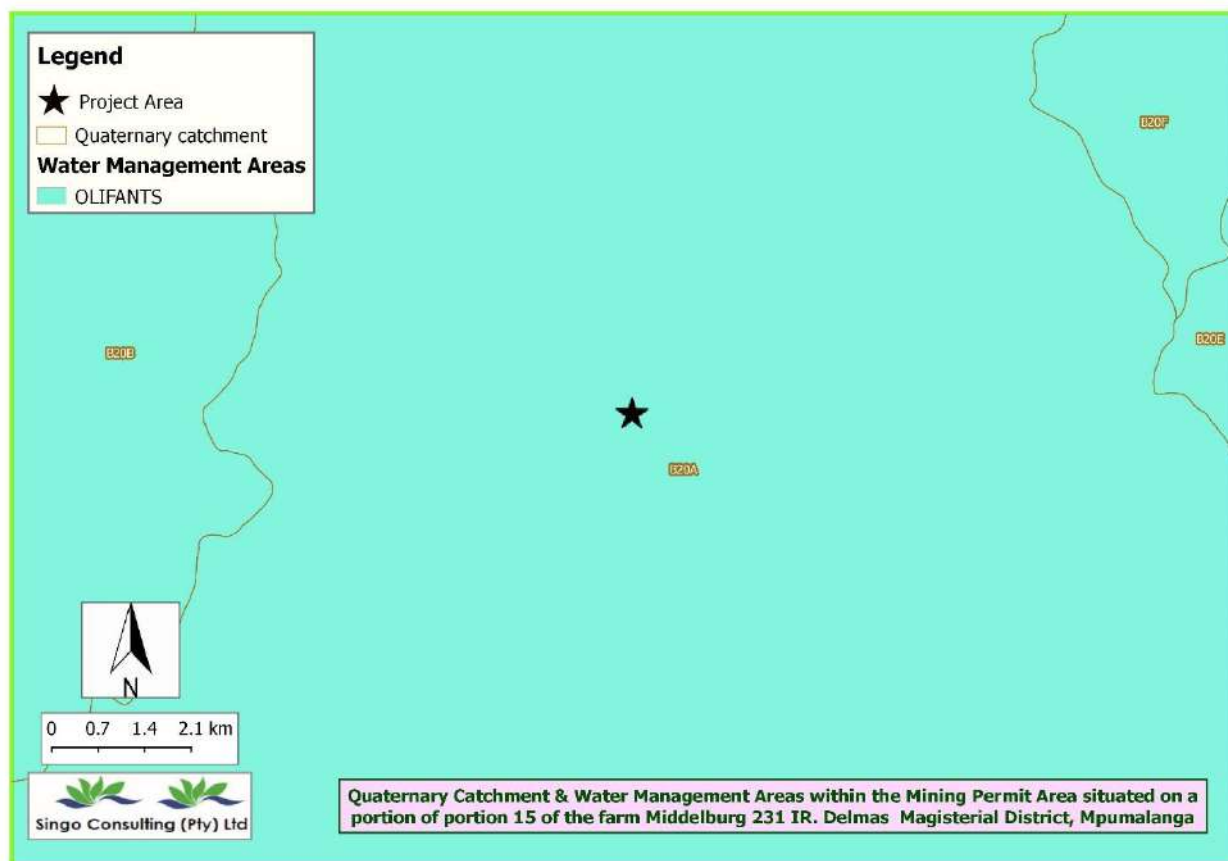


Figure 22: Quaternary Catchment and Water Management Area map for the proposed mining area.

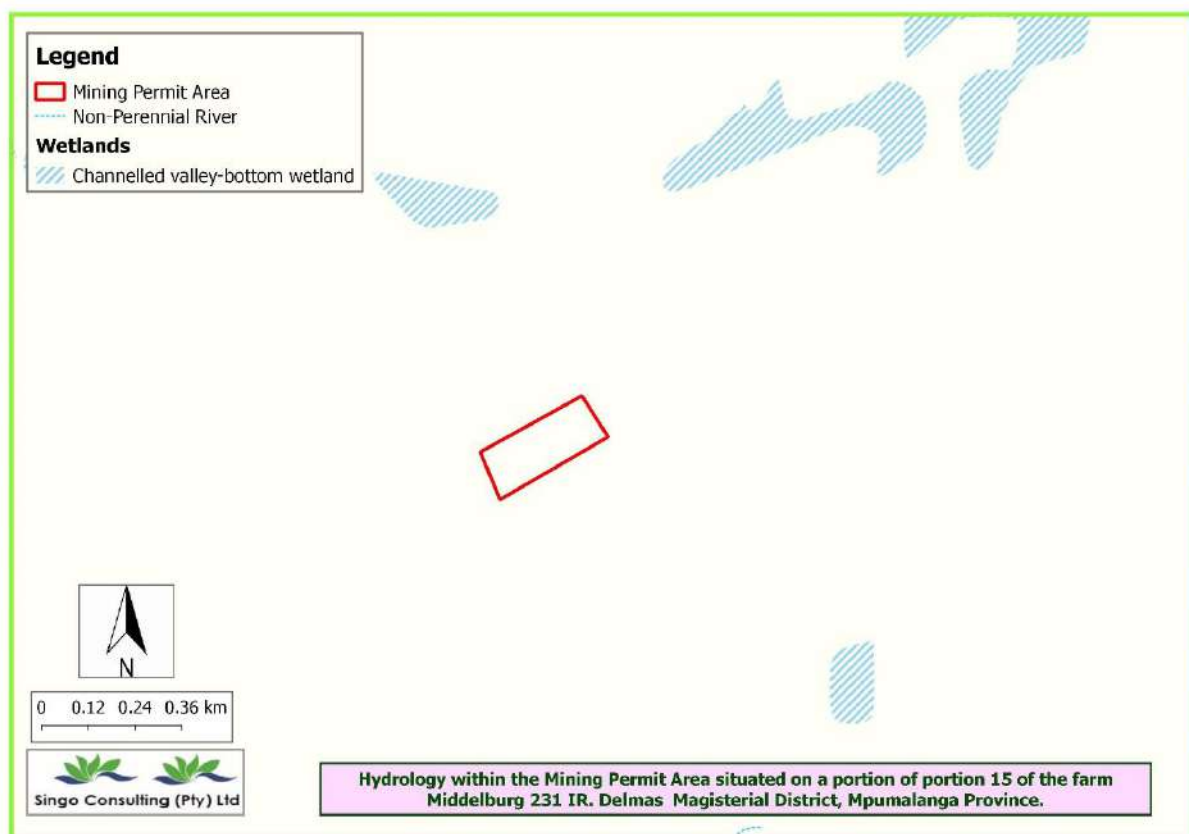


Figure 23: Hydrology map of the project area

3.1.7.2 Ground water

Regional Groundwater Occurrence and Aquifers

Based on the geology within the study area, the structural geology, and the geomorphology, the following conditions can arise to enhance aquifer development within the study area:

- The fractured transition zone between weathered and fresh bedrock
- Fractures along contact zones between the host rocks due to heating and cooling of rocks involved with the intrusions
- Contact zones between sedimentary rocks of different types
- Inter-bed or bedding plane fracturing
- Openings on discontinuities formed by fracturing
- Faulting due to tectonic forces
- Stratigraphic unconformities
- Zones of deeper weathering
- Fractures related to tensional and decompressional stresses due to off-loading of overlying material
- Groundwater occurs within the joints, bedding planes and along dolerite contacts. Groundwater potential is generally low in these rocks, with 87% of borehole yields < 3 l/s.

The proposed project area falls under the Karoo Aquifer (fractured environment influenced by dykes). The fractured Karoo aquifer consists of the various lithologies of siltstone, shale, sandstone, and the coal seams. The pores of the geological units are generally well cemented, and the principle flow mechanism is fractured flow along secondary structures e.g. faults, bedding plane fractures etc. The intrusion of the fractured aquifer by dolerite dykes and sills has led to the formation of preferential flow paths along the contacts of these lithologies due to the formation of cooling joints. The dykes may act as permeable or semi-permeable features to impede flow across the dykes.

The fractured pre-Karoo aquifer is separated from the overlying fractured Karoo aquifer by Dwyka tillites which act as an aquiclude where present. The flow mechanism is fracture flow as can be expected from the crystalline nature of the granite rocks. The water quality is generally characterized by high fluoride levels which limits exploitation of this aquifer in combination with the general low yields, deep (expensive) drilling and the low recharge (Grobbelaar et al, 2004). Mining of the coal seams has resulted in the introduction of an artificial aquifer system which generally dominates the groundwater flow on a local and regional scale.

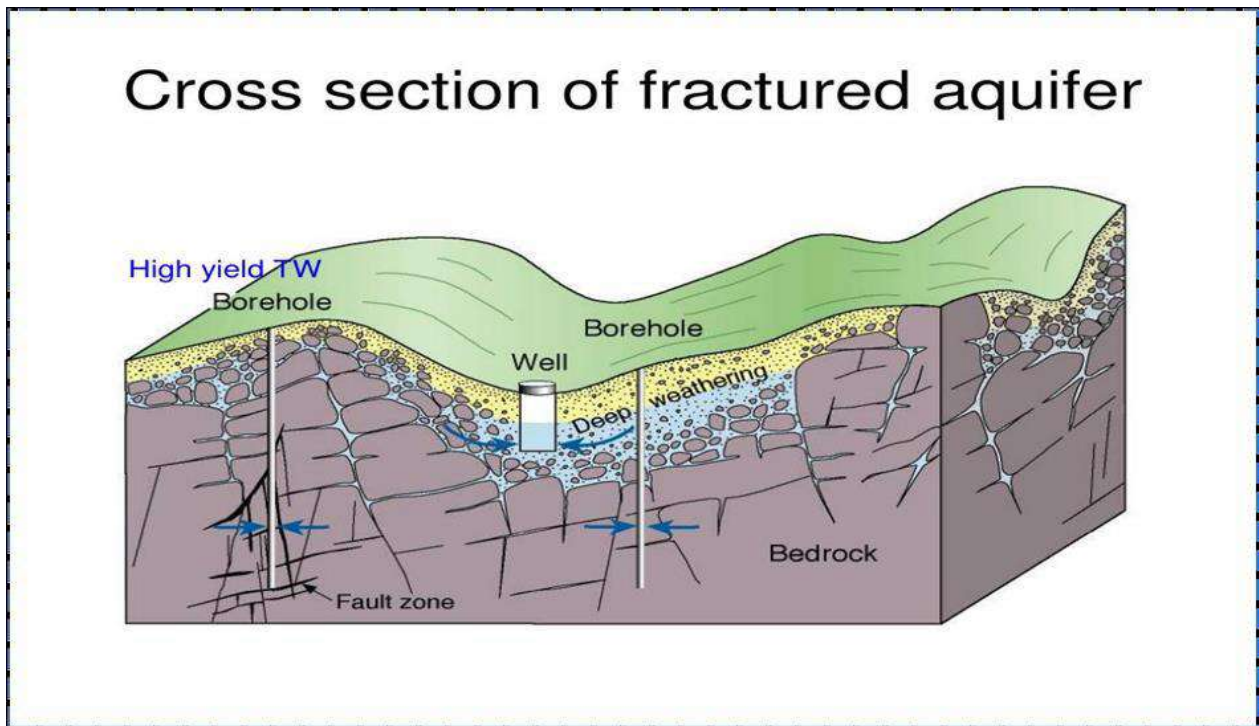


Figure 24: Cross section of a fractured aquifer

The quality of groundwater will be impacted upon by mining. The establishment of the opencast areas is expected to have a negative effect on the nearby aquifers within the immediate area which can cause lowering of water levels on neighboring boreholes. It is therefore inevitable that an operation of this scale will impact on the ground water regime, measures to manage and reduce these impacts to be absolute minimum must be considered.

3.1.8 climate

According to (Climate-data.org), Delmas lies on 89m above sea level. This city has a tropical climate. When compared with winter, the summers have much more rainfall. This climate is considered to be Aw according to the Köppen-Geiger climate classification. In Delmas, the average annual temperature is 26.2 °C | 79.2 °F. Precipitation here is about 1230 mm | 48.4 inch per year.

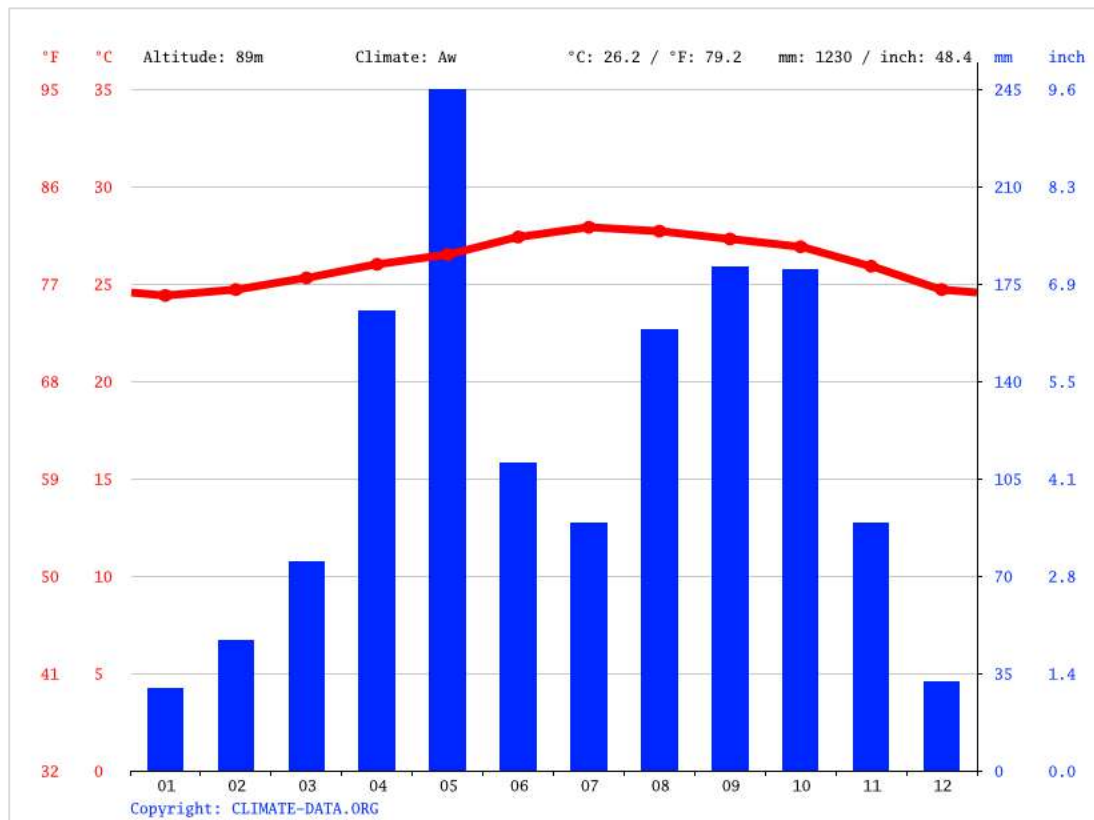


Figure 25: Delmas Climate Graph (source: Climate-data.org)

Temperature of Delmas per month

Rainfall Data for the mining permit area was obtained from the WR2005 study (Middleton and Bailey, 2009), the Rainfall Extraction Utility Programme (Kunz, 2004) and the Design Rainfall Estimation Program (Smithers and Schulze, 2002). The daily rainfall extraction utility contains daily patched rainfall data for all official South African Weather Services stations. The rainfall stations considered were close to the site had a reasonable length of record and a relatively complete and reliable data set. The annual rainfall within the mining permit area ranges from 601mm-800mm as seen on Figure 26 below.

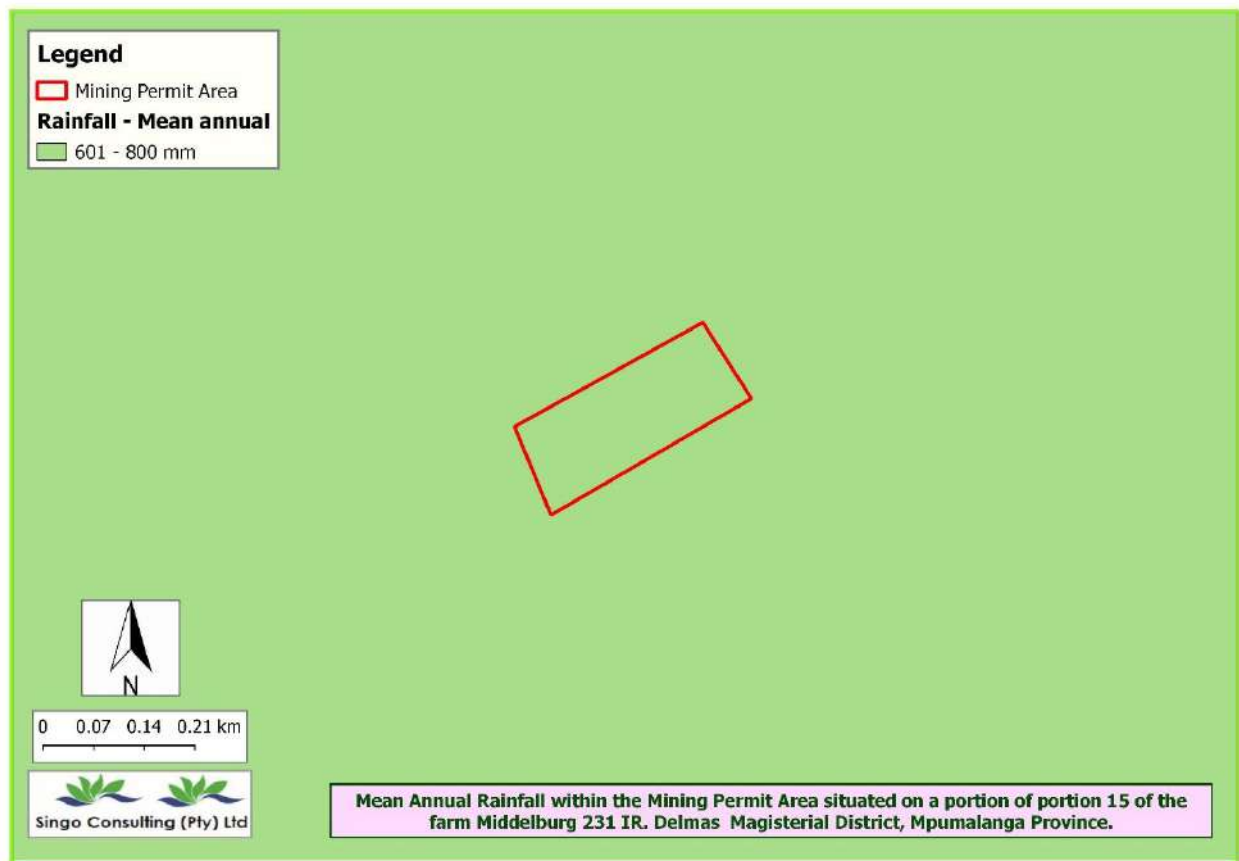


Figure 26: Mean Annual Rainfall within the project area

3.1.9 Topography

With the aid of QGIS software the topographical map below was produced. Topography describes the physical features of an area of land. The dominant vegetation types such as grass, shrubs and a few trees, which is typical of the Mpumalanga region.

The topography of the farm Middleburg 231 IR is a flat lying with some hills on the eastern side. The proposed Sand, Aggregates, Silica & Decorative stones (Gemstones) mining permit is situated in a flat lying with a topography ranges from 1540-1555 as displayed by the contour lines on the topology map below.

Elevation is shown using contour lines. When a contour line is drawn on a map it represents a given elevation. Every point on the map touching the line should be the same elevation. On some maps, numbers on the lines will let you know what the elevation is for that line. Contour lines next to each other will represent different elevations. The closer the contour lines are to each other, the steeper the slope of the land.

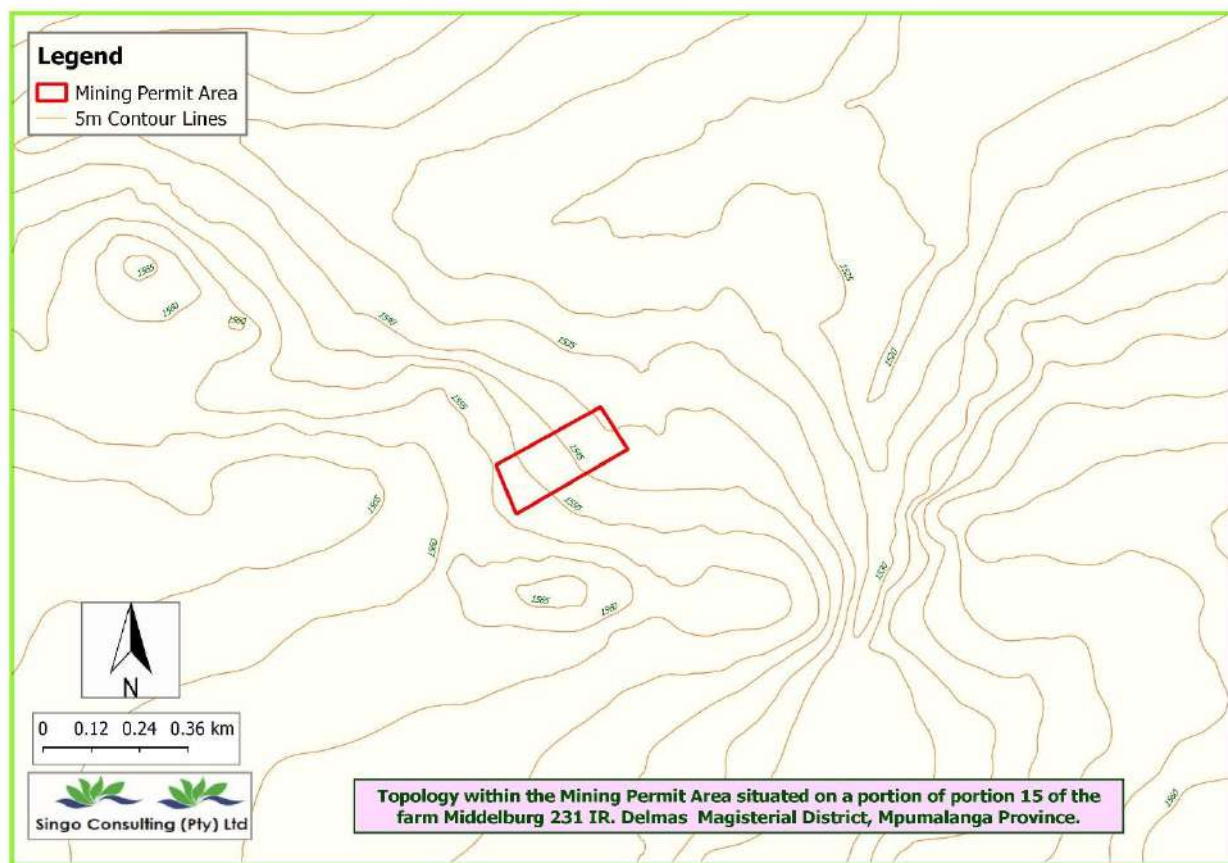


Figure 27: Topography of the project area

3.1.10 Public roads

The proposed mining permit area is located approximately 1.82 km South of Botleng and approximately 4.08 km North East of Delmas. The tar road extends from the provincial road R42. This road will be used to access and exit the permit area. This road links with the provincial road R50 and the National road N12 which will also be used during mining activities for the transportation of mined resources upon approval from the SANRAL.

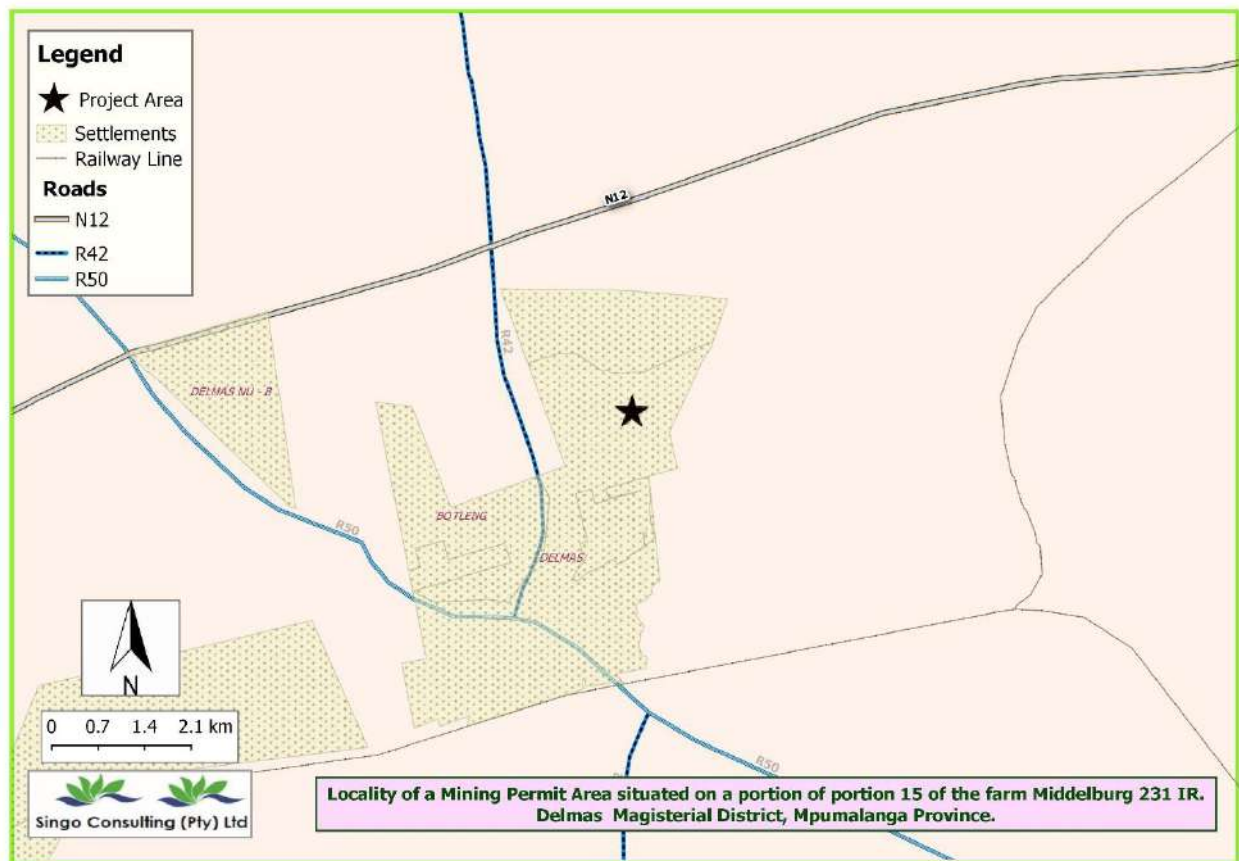


Figure 28: Locality map showing both N12 and R42 as access roads to the proposed project area.



Figure 29: Google Earth map showing access road to the project area.



Figure 30: pictures showing access roads to the proposed project area.

3.2 Graves, heritage, archaeological and cultural resources

Heritage resources such as Stone Age sites, rock paintings and engravings; stone tools; small, inconspicuous stone walled sites from the Late Iron Age farming communities; formal and informal graveyards, etc. may occur in the study area. However, no heritage sites or artefacts were discovered within or near the permit area during site assessment. Should any heritage resources of significance be exposed during the construction or rather operational phase of the project, the South African Heritage Resources Agency (SAHRA) should be notified immediately, all development activities should be stopped, and an archaeologist accredited with the Association for Southern African Professional Archaeologist (ASAPA) should be notified to determine appropriate mitigation measures for the discovered finds. This may include obtaining

the necessary authorisation (permits) from SAHRA to conduct the required mitigation measures.

3.3 Railway line

No railway lines have been observed on site. The nearest Railway is located approximately 3.71 km South of the project area. However, Transnet Freight Rail has been consulted regarding the project and attention was drawn to the section 48 (1) of the MPRDA (Act 2002) and the Regulation 17 (6) (a) of the Mine Health and Safety Act, 1996. From the site assessment conducted on the project area, there are no pipelines observed, the railway line is located approximately 3.71 km South of the project area. However, should pipelines be found on site during mining activities on any stage, Transnet Freight Rail will be consulted immediately.

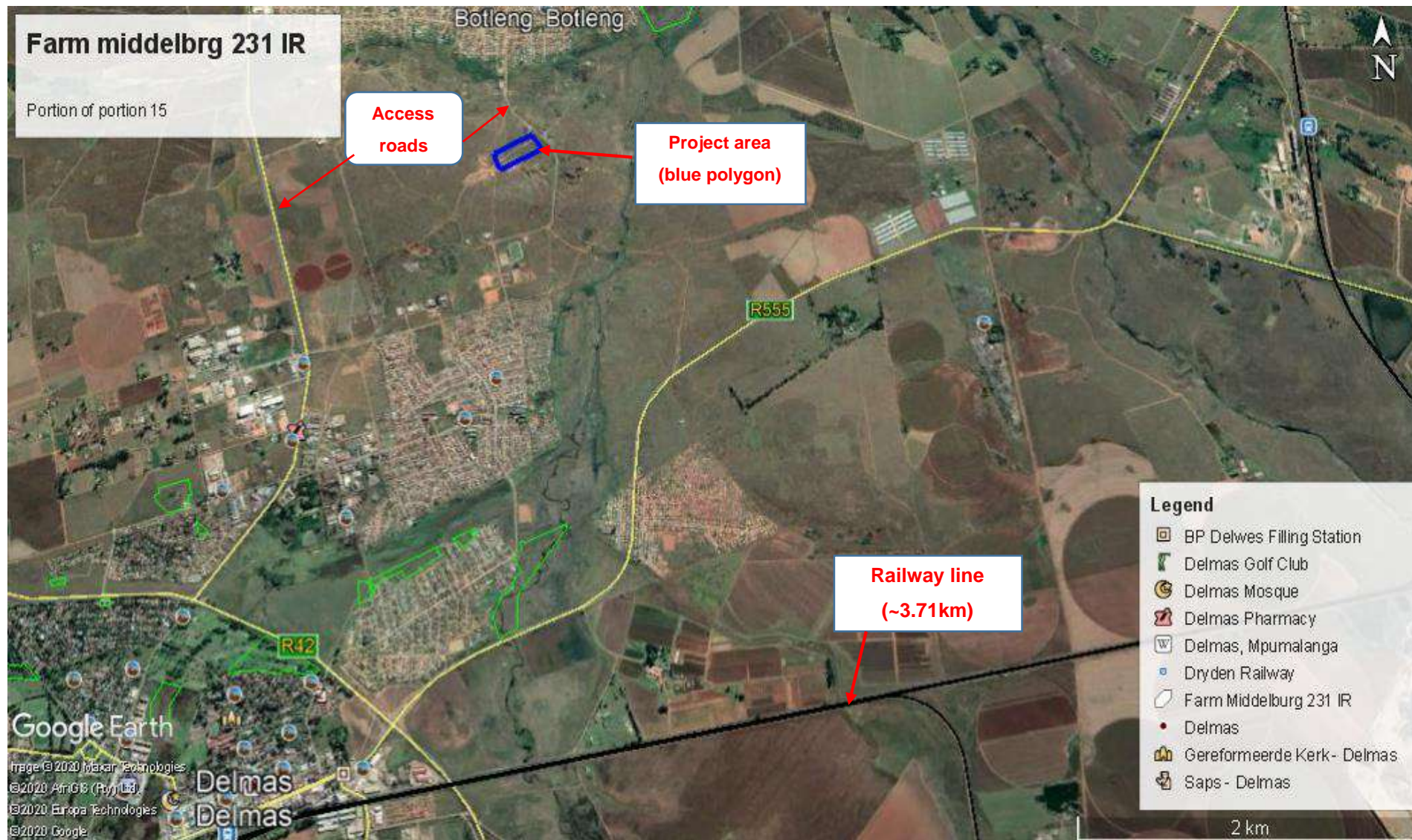


Figure 31: Google earth view map showing railway line.

3.4 Noise

Portion of the mining permit area is classified uncategorised as shown on the land use map. The remaining part is classified as cultivated land. The project is approximately 561.14 m from the last house of Botleng community. The noise to be generated at the proposed project operation is expected to temporarily increase the noise level of the area. Blasting noise will be instantaneous and of short duration, it will be occurring only twice a week. Crushing and transporting of the material will generate noise daily. Community members will be notified 2 days before blasting activities. The significance of noise on the surrounding environment is therefore deemed to be of low significance. Mitigation measure should be implemented to ensure employees behave in an acceptable manner while on site in order to lessen the noise impact of the proposed activity on the surrounding environment.

3.5 Socio-economic

The Motau Mining Services' Mining Permit project is located within the Magisterial District of Delmas under the jurisdiction of the Victor Khanye Local Municipality, situated in the Nkangala District Municipality. The Municipality covers a geographical area of about 1.567 square kilometres of the western Highveld of Mpumalanga Province and it comprises of Delmas, Botleng, Sundra, Eloff and Delpark towns and settlements. The overall population of the Victor Khanye Local Municipality as per stats 2016 is 84 151 inclusive of all the nine wards.

Table 1: population of Victor khanye Local Municipality per Ward

WARD	POPULATION	SQUARE KILOMETER	PEOPLE PER SQUARE KM
Ward 1	6231	1.4	4469.6
Ward 2	5745	5	1140.1
Ward 3	12765	45.4	281.1
Ward 4	6023	0.728	8275.2
Ward 5	7469	1.6	4650.1
Ward 6	6525	3.7	1741.9
Ward 7	10230	824.7	12.4
Ward 8	7172	62.5	114.8
Ward 9	13292	644.9	20.6

Economic sectors

Delmas is the primary node in the Victor Khanye municipal area. Delmas is the primary node in the Victor Khanye municipal area. The municipality is predominantly rural in nature, with minor economic concentrations in the small towns of Botleng and Eloff, with urban areas comprised of residential area with supportive services such as business, social facilities, etc. The Municipality's economy is relatively diverse, with the largest output sector and a proportionate contribution being agriculture followed by community services and trade. During recent years, the total output of the agriculture sector experienced significant levels of growth while the mining and minerals sector declined.

The municipality's rural area(s) is primarily composed of extensive commercial agriculture, particularly maize, with an estimated annual production of 230 000 to 250 000 metric tons. Since the Delmas region is a "high potential" agricultural area, it is important to protect the agricultural land from urban sprawl and mining, etc. Mining activities are concentrated mainly on coal and silica in the Delmas area and successively, 2 million metric tons of silica are mined annually in the municipality.

Population demographics

The population of Victor Khanye Local Municipality has grown significantly since 2011 increasing from 56 335 to 84 151, which represents a growth of 2.3% since (Census 2016). The local municipality represents the largest population growth in Mpumalanga Province. The growth is also shown in the significant growth in the number of household's units from 12 478 in 1996 to 24 276 in 2016 (representing an increase of 53% as a result of the population's exponential growth). However, the Victor Khanye Local Municipality comprises only 5, 8% of the total households in the Nkangala District Municipality by implication that indicates that the municipality should provide services to more households. (IDP 2017-2021)

Education

It was denoted that about 25% of the population above 15 years of age has had no schooling or did not complete primary school. Consequently, of that number 5 528 are basically illiterate and thus future meaningful employment prospects are virtually impossible. A further 41% of the population did not complete the schooling curriculum and therefore did not reach the level of matric.

Employment and income

The unemployment rate based on the 2016 definition rests on 21.6 which is relatively high considering the economic activity in the area. However, the employment situation is expected

to improve over the medium term with additional jobs in the mining sector.

As per stats SA 2016, the income level per household is considered a better indicator of poverty and reflects that at least 42 % can be classified as indigent as they earn less than R1,600 per month. There is a negative trend developing as more households have reportedly dropped below the poverty line. The municipality ranks the 9th with respect to the overall province statistics standing.

The low-income levels per household in the society correlates with the low level of education in the region. Leading industries in employment comprises of trade (18%), Agriculture (18.2%), community services contributing (14.3%) and mining which has grown as an employer and now contributing 12.7%. The high rate of unemployment and illiteracy within the municipal area is an indicator of the need for economic development to create opportunities for employment. No local employment opportunities are expected during the prospecting phase, however, confirmation of a viable mineral resource and possible establishment of a mine may help address the challenges faced by the communities affected by the project going forth.

3.6 Description of current land uses

The current land uses in the region include cultivated land and uncategorized land as shown in Figure 32 below.

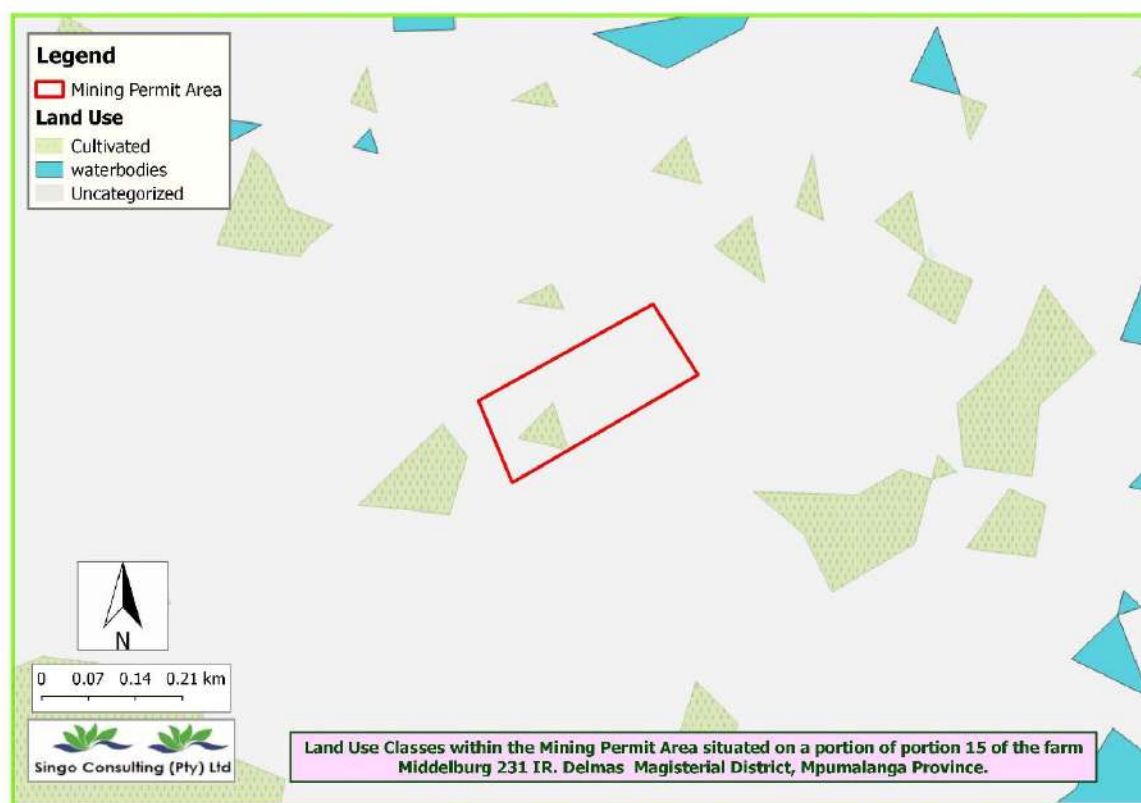


Figure 32: Land use map

3.7 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 minimal vegetation cover. Immediate surrounding areas are being used for agricultural purpose and mining. The proposed activity will entail overburden removal, commodities extraction, in-pit crushing and hauling. These activities will be limited to sections demarcated for working purposes.
Low-density residential		No	
Medium-density residential	Yes		The project is located approximately 1.82 km South of Botleng.
High-density residential		No	
Informal residential		No	
Retail commercial and warehousing		No	
Light industrial		No	
Medium industrial		No	
Heavy industrial		No	
Power station		No	
Office/consulting room		No	
Military or police base/ station/compound		No	
Soil heap or slimes dam		No	
Quarry, sand, mine or borrow pit		No	
Dam or reservoir		No	
Hospital/Medical Centre		No	
School or crèche		No	
School		No	
Tertiary education facility		No	
Church		No	
Old age home		No	
Sewage treatment plant		No	
Train station or shunting yard		No	
Railway line		No	
Major (road 4 lines or more)		No	
River, stream or wetland		No	
Agriculture	Yes		The project area is surrounded by land used for agricultural purposes, particularly grains farming.

Land use character	Yes	No	Description
Nature conservation area		No	
Mountain, hill or ridge		No	
Museum		No	
Historical building		No	
Plantation		No	
Landfill/waste treatment site		No	
Archaeological sites		No	
Other land uses		No	

3.8 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.

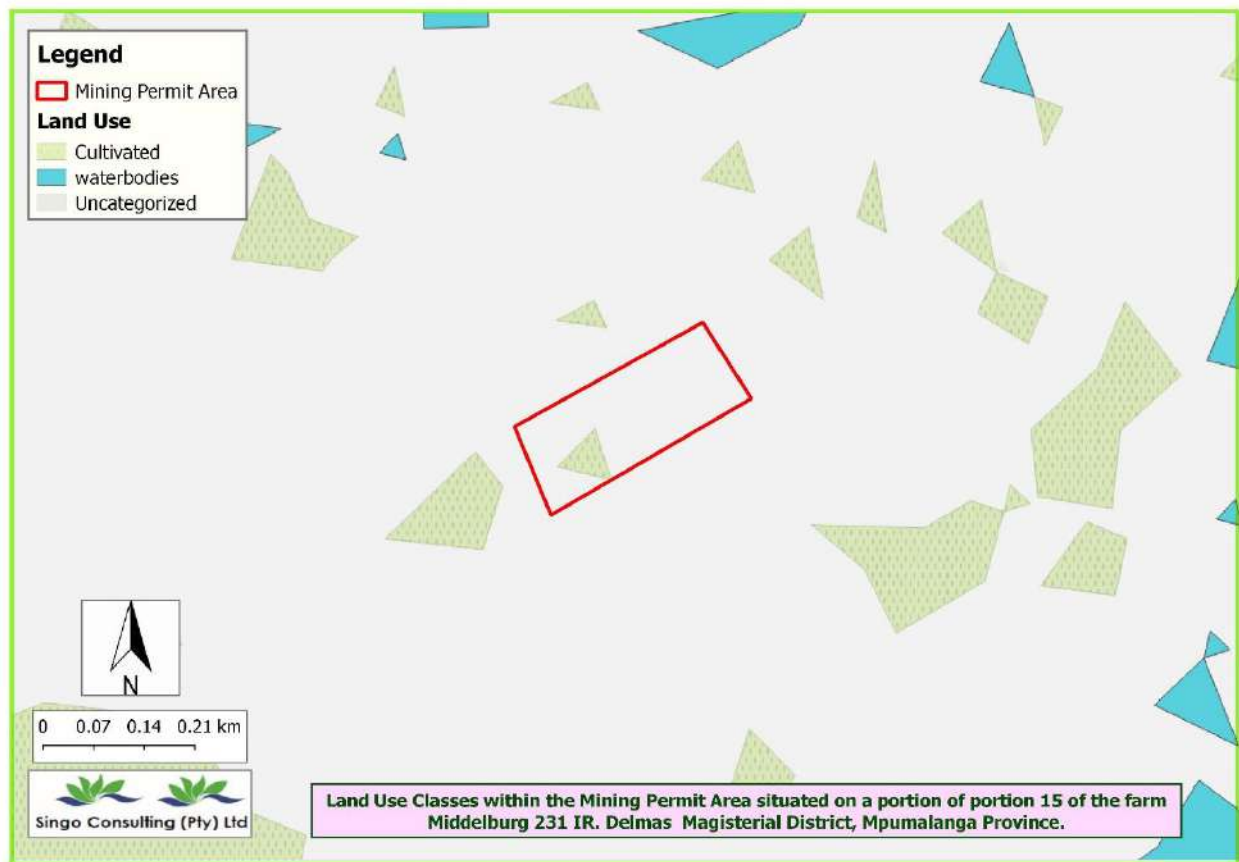


Figure 33: Current land use map, project area highlighted by a red rectangle.

3.9 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. 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.

3.9.1 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
Severity	Duration	Extent		Probability	Frequency		
2	5	2	3	5	5	5	15

Dust nuisance caused by soil disturbance.

Rating: Medium

Degree of mitigation: Partial

			Consequence			Likelihood	Significance
Severity	Duration	Extent		Probability	Frequency		
2	4	2	2.6	5	5	5	13

Noise nuisance caused by machinery stripping and stockpiling the topsoil.

Rating: Medium

Degree of mitigation: Partial

			Consequence			Likelihood	Significance
Severity	Duration	Extent		Probability	Frequency		
2	4	2	2.6	5	5	5	13

Infestation of the topsoil heaps by weeds or invader plants.

Rating: Low-Medium

Degree of mitigation: Full

			Consequence			Likelihood	Significance
Severity	Duration	Extent		Probability	Frequency		

3	4	1	2.6	5	2	3.5	9
---	---	---	-----	---	---	-----	---

Loss of topsoil due to incorrect storm water management.

Rating: Medium

Degree of mitigation: Full

			Consequence			Likelihood	Significance
Severity	Duration	Extent		Probability	Frequency		
3	4	1	2.6	5	4	4.5	11.7

Contamination of area with hydrocarbons or hazardous waste materials.

Rating: Medium-High

Degree of mitigation: Full

			Consequence			Likelihood	Significance
Severity	Duration	Extent		Probability	Frequency		
4	4	2	3.3	5	5	5	16.5

3.9.2 Blasting

Health and safety risk posed by blasting activities.

Rating: Medium

Degree of mitigation: Full

			Consequence			Likelihood	Significance
Severity	Duration	Extent		Probability	Frequency		
4	4	1	3	5	2	3.5	10.5

Dust nuisance caused by blasting activities.

Rating: Low-Medium

Degree of mitigation: None

			Consequence			Likelihood	Significance
Severity	Duration	Extent		Probability	Frequency		
2	1	2	1.6	5	2	3.5	5.6

Noise nuisance caused by blasting activities.

3.9.3 Excavation

Visual intrusion associated with the excavation activities.

Rating: Medium-High

Degree of mitigation: Partial

			Consequence			Likelihood	Significance
Severity	Duration	Extent		Probability	Frequency		
2	5	2	3	5	5	5	15

Dust nuisance due to excavation activities.

Rating: Medium

Degree of mitigation: Partial

			Consequence			Likelihood	Significance
Severity	Duration	Extent		Probability	Frequency		
2	4	2	2.6	5	5	5	13

Noise nuisance generated by excavation equipment.

Rating: Medium

Degree of mitigation: Partial

			Consequence			Likelihood	Significance
Severity	Duration	Extent		Probability	Frequency		
2	4	1	2.3	4	5	4.5	10.4

Unsafe working conditions for employees.

Rating: Medium-High

Degree of mitigation: Full

			Consequence			Likelihood	Significance
Severity	Duration	Extent		Probability	Frequency		
4	4	1	3	5	5	5	15

Negative impact of the fauna and flora of the area.

Rating: Low

Degree of mitigation: Full

			Consequence			Likelihood	Significance
Severity	Duration	Extent		Probability	Frequency		
2	1	1	1.3	5	1	3	3.9

Contamination of area with hydrocarbons or hazardous waste materials.

Rating: Medium

Degree of mitigation: Full

			Consequence			Likelihood	Significance
Severity	Duration	Extent		Probability	Frequency		
4	4	2	3.3	4	5	4.5	14.9

Weed and invader plant infestation of the area.

Rating: Low-Medium

Degree of mitigation: Full

			Consequence			Likelihood	Significance
Severity	Duration	Extent		Probability	Frequency		
3	4	1	2.6	5	2	2	5.2

3.9.4 In-pit crushing

Dust nuisance due to the crushing activities.

Rating: Medium

Degree of mitigation: Full

			Consequence			Likelihood	Significance
Severity	Duration	Extent		Probability	Frequency		
3	3	2	2.6	5	5	5	13

Noise nuisance generated by the crushing activities.

Rating: Medium

Degree of mitigation: Partial

			Consequence			Likelihood	Significance
Severity	Duration	Extent		Probability	Frequency		
3	4	1	2.6	4	5	4.5	11.7

Contamination of area with hydrocarbons or hazardous waste materials.

Rating: Medium

Degree of mitigation: Full

			Consequence			Likelihood	Significance
Severity	Duration	Extent		Probability	Frequency		
4	4	2	3.3	4	5	4.5	14.9

3.9.5 Stockpiling and transporting

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

Rating: Medium

			Consequence			Likelihood	Significance
Severity	Duration	Extent		Probability	Frequency		
2	4	2	2.6	4	5	4.5	11.7

Loss of material due to ineffective storm water handling

Rating: Low-Medium

Degree of mitigation: Partial

			Consequence			Likelihood	Significance
Severity	Duration	Extent		Probability	Frequency		
2	4	1	2.3	4	3	3.5	8

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

Rating: Low-Medium

Degree of mitigation: Full

			Consequence			Likelihood	Significance
Severity	Duration	Extent		Probability	Frequency		
2	4	2	2.6	4	2	3	7.8

Dust nuisance from stockpiled material and vehicles transporting the material

Rating: Medium

Degree of mitigation: Full

			Consequence			Likelihood	Significance
Severity	Duration	Extent		Probability	Frequency		
2	4	2	2.6	4	5	4.5	11.7

Degradation of access roads

Rating: Medium

Degree of mitigation: Full

			Consequence			Likelihood	Significance
Severity	Duration	Extent		Probability	Frequency		
3	4	2	3	4	5	4.5	13.5

Noise nuisance caused by vehicles

Rating: Medium

Degree of mitigation: Partial

			Consequence			Likelihood	Significance
Severity	Duration	Extent		Probability	Frequency		
2	4	2	2.6	4	5	4.5	11.7

Contamination of area with hydrocarbons or hazardous waste materials

Rating: Medium

Degree of mitigation: Full

			Consequence			Likelihood	Significance
Severity	Duration	Extent		Probability	Frequency		
4	4	2	3.3	4	5	4.5	14.9

3.9.6 Sloping and landscaping during rehabilitation

Soil erosion

Rating: Low-Medium

Degree of mitigation: Full

			Consequence			Likelihood	Significance
Severity	Duration	Extent		Probability	Frequency		
4	4	1	3	3	3	3	9

Health and safety risk posed by un-sloped areas

Rating: Medium-High

Degree of mitigation: Full

			Consequence			Likelihood	Significance
Severity	Duration	Extent		Probability	Frequency		
4	5	1	3.3	5	5	5	16.5

Dust nuisance caused during sloping and landscaping activities

Rating: Low-Medium

Degree of mitigation: Partial

			Consequence			Likelihood	Significance
Severity	Duration	Extent		Probability	Frequency		
2	3	1	2	4	5	4.5	9

Noise nuisance caused by machinery

Rating: Low-Medium

Degree of mitigation: Partial

			Consequence			Likelihood	Significance
Severity	Duration	Extent		Probability	Frequency		
2	1	2	1.6	3	5	4	6.4

Contamination of area with hydrocarbons or hazardous waste materials

Rating: Low-Medium

Degree of mitigation: Full

			Consequence			Likelihood	Significance
Severity	Duration	Extent		Probability	Frequency		
4	4	1	3	3	1	2	6

3.9.7 Replacing of topsoil and rehabilitation of disturbed area

Loss of reinstated topsoil due to the absence of vegetation

Rating: Low-Medium

Degree of mitigation: Full

			Consequence			Likelihood	Significance
Severity	Duration	Extent		Probability	Frequency		
3	3	1	2.3	3	2	2.5	5.8

Infestation of the area by weed and invader plants

Rating: Low-Medium

Degree of mitigation: Full

			Consequence			Likelihood	Significance
Severity	Duration	Extent		Probability	Frequency		
3	4	1	2.6	4	2	3	7.8

3.10 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.

3.10.1 Definitions and concepts

3.10.1.1 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).

3.10.1.2 Impact

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

3.10.1.3 Consequence

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

3.10.1.4 Likelihood

A qualitative term covering both probability and frequency.

3.10.1.5 Frequency

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

3.10.1.6 Probability

The likelihood of a specific outcome measured by the ratio of a specific outcome to the total number of possible outcomes.

3.10.1.7 Environment

Surroundings in which an organisation operates, including air, water, land, natural resources,

flora, fauna, humans and their interrelation (ISO 14004, 1996).

3.10.1.8 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.

3.10.1.9 Severity rating

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

quantity and quality, waste production, fauna and flora)	disturbance	or disturbance	or disturbance	disturbance	disturbance
--	-------------	----------------	----------------	-------------	-------------

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

3.10.2 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, medium-high or high, as shown in the table below.

3.10.2.1 Determination of overall environmental significance

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

3.10.2.2 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. Acceptable.	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. Unacceptable.	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.

3.10.3 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 or 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 would be negligible	In the case of negative impacts, almost no mitigation and or remedial activity would be needed, and any minor steps, which might be needed, 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.

3.11 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 mine area will be established on a field which is being utilized for cattle grazing with minimal vegetation cover. The adjacent land is being utilised for agricultural purposes. Upon closure of the mining area, the land will, once again, be used for agricultural purposes.

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 job creation for skilled, semi-skilled and un-skilled workers. The proposed mine will, therefore, contribute to upgrading/ maintaining infrastructure in and around Delmas area, which will indirectly contribute to the economy of the area.

3.12 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.

3.12.1 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.

3.12.2 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.

3.12.3 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.

3.12.4 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.

3.12.5 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.

3.12.6 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).

3.12.7 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 off-site workshop. If emergency repairs are needed on equipment unable to move to the workshop, 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 the workshop 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.

3.12.8 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.

3.12.9 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.

3.12.10 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).

3.13 Motivation where no alternative sites were considered

Motau Mining Services identified the growing need for the applied commodities resources. 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, which has proven that resources are available in the area. The establishment of an open cast 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 open cast mining has been identified as the most effective method to produce the desired products.
- The use of temporary infrastructure will reduce the impact on the environment and decrease closure objectives with regard to infrastructure decommissioning.
- The tar road extends from the provincial road R42. This road will be used to access and exit the permit area.

3.14 Statement motivating the alternative development location within overall site

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

The open cast mine has been identified as the most cost-effective method to produce the desired products. The proposed method will produce any residual (overburden) waste to be disposed of. Due to the remote location of the mine area, the potential impacts on the surrounding environment, associated with open cast 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.

3.15 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. 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.

3.15.1 Stripping and stockpiling of topsoil

Visual intrusion associated with the establishment of the mining area.

Rating: Medium

			Consequence			Likelihood	Significance
Severity	Duration	Extent		Probability	Frequency		
2	4	2	2.6	5	5	5	13

Dust nuisance caused by the disturbance of the soil

Rating: Low

			Consequence			Likelihood	Significance
Severity	Duration	Extent		Probability	Frequency		
1	1	1	1	3	2	2.5	2.5

Noise nuisance caused by machinery stripping and stockpiling the topsoil

Rating: Low

			Consequence			Likelihood	Significance
Severity	Duration	Extent		Probability	Frequency		
1	1	2	1.3	3	2	2.5	3.3

Infestation of the topsoil heaps by weeds or invader plants

Rating: Low

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

Loss of topsoil due to incorrect storm water management

Rating: Low

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

Contamination of area with hydrocarbons or hazardous waste materials

Rating: Low

			Consequence			Likelihood	Significance
--	--	--	-------------	--	--	------------	--------------

Severity	Duration	Extent		Probability	Frequency		
4	1	1	3	2	1	1.5	4.5

3.15.2 Blasting

Health and safety risk posed by blasting activities

Rating: Low

			Consequence			Likelihood	Significance
Severity	Duration	Extent		Probability	Frequency		
4	1	1	3	2	1	1.5	4.5

Dust nuisance caused by blasting activities

Rating: Low – Medium

			Consequence			Likelihood	Significance
Severity	Duration	Extent		Probability	Frequency		
2	1	2	1.6	5	2	3.5	5.6

Noise nuisance caused by blasting activities

Rating: Low – Medium

			Consequence			Likelihood	Significance
Severity	Duration	Extent		Probability	Frequency		
2	1	2	1.6	5	2	3.5	5.6

3.15.3 Excavation

Visual intrusion associated with the excavation activities

Rating: Medium

			Consequence			Likelihood	Significance
Severity	Duration	Extent		Probability	Frequency		
2	4	2	2.6	5	5	5	13

Dust nuisance due to excavation activities

Rating: Low

			Consequence			Likelihood	Significance
Severity	Duration	Extent		Probability	Frequency		

1	1	1	1	3	3	3	3
---	---	---	---	---	---	---	---

Noise nuisance generated by excavation equipment

Rating: Low – Medium

			Consequence			Likelihood	Significance
Severity	Duration	Extent		Probability	Frequency		
1	4	1	2	3	3	3	6

Unsafe working conditions for employees

Rating: Low

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

Negative impact on the fauna and flora of the area

Rating: Low

			Consequence			Likelihood	Significance
Severity	Duration	Extent		Probability	Frequency		
2	1	1	1.3	1	1	1	1.3

Contamination of area with hydrocarbons or hazardous waste materials

Rating: Low

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

Weed and invader plant infestation of the area

Rating: Low

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

3.15.4 Crushing

Dust nuisance due to the crushing activities

Rating: Low – Medium

			Consequence			Likelihood	Significance
Severity	Duration	Extent		Probability	Frequency		
2	3	1	2	2	3	2.5	5

Noise nuisance generated by the crushing activities

Rating: Low – Medium

			Consequence			Likelihood	Significance
Severity	Duration	Extent		Probability	Frequency		
2	4	1	2.3	2	3	2.5	5.8

Contamination of area with hydrocarbons or hazardous waste materials

Rating: Low

			Consequence			Likelihood	Significance
Severity	Duration	Extent		Probability	Frequency		
4	1	1	2	2	2	2	4

3.15.5 Stockpiling and transporting

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

Rating: Low – Medium

			Consequence			Likelihood	Significance
Severity	Duration	Extent		Probability	Frequency		
2	4	2	2.6	2	3	2.5	6.5

Loss of material due to ineffective storm water handling.

Rating: Low

			Consequence			Likelihood	Significance
Severity	Duration	Extent		Probability	Frequency		
2	1	1	1.3	2	1	1.5	2

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

Rating: Low

			Consequence			Likelihood	Significance
Severity	Duration	Extent		Probability	Frequency		
2	1	1	1.3	4	2	3	3.9

Dust nuisance from stockpiled material and vehicles transporting the material.

Rating: Low

			Consequence			Likelihood	Significance
Severity	Duration	Extent		Probability	Frequency		
1	1	1	1	2	3	2.5	2.5

Degradation of access roads.

Rating: Low – Medium

			Consequence			Likelihood	Significance
Severity	Duration	Extent		Probability	Frequency		
3	1	2	2	3	3	3	6

Noise nuisance caused by vehicles.

Rating: Low

			Consequence			Likelihood	Significance
Severity	Duration	Extent		Probability	Frequency		
1	1	2	1.3	2	3	2.5	3.3

Contamination of area with hydrocarbons or hazardous waste materials.

Rating: Low

			Consequence			Likelihood	Significance
Severity	Duration	Extent		Probability	Frequency		
4	1	1	2	2	2	2	4

3.15.6 Sloping and landscaping during rehabilitation

Soil erosion

Rating: Low

			Consequence			Likelihood	Significance
Severity	Duration	Extent		Probability	Frequency		
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		Probability	Frequency		

4	1	1	2	2	1	1.5	3
---	---	---	---	---	---	-----	---

Dust nuisance caused during sloping and landscaping activities.

Rating: Low

			Consequence			Likelihood	Significance
Severity	Duration	Extent		Probability	Frequency		
1	1	1	1	2	1	1.5	1.5

Noise nuisance caused by machinery.

Rating: Low

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

3.15.7 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		Probability	Frequency		
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		Probability	Frequency		
3	1	1	1.6	2	2	2	3.2

3.16 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	The noise impact		Medium	Control: Noise control	Low

NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE	MITIGATION TYPE	SIGNIFICANCE
	caused by machinery stripping and stockpiling the topsoil	should be contained within the boundaries of the property, but might have a periodic impact on the closest residents of Botleng community.			measures	
	Infestation of the topsoil heaps by weeds and invader plants	Biodiversity		Low-medium	Control and remedy: Implementation of weed control	Low
	Loss of topsoil due to incorrect storm water management	Loss of topsoil will affect the rehabilitation of the mining area.		Medium	Control: Storm water management	Low
	Contamination of area with hydrocarbons or hazardous waste materials	Contamination may cause surface or ground water contamination if not addressed		Medium-high	Control and remedy: Implementation of waste management	Low
Blasting	Health and safety risk posed by blasting activities	Impact might affect the employees working on site	Operational phase	Medium	Control: Health and safety monitoring and management	Low
	Dust nuisance caused by blasting activities	Depends on the blast, the impact might affect the surrounding community.		Low-medium	Control: Dust suppression	Low-medium

NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE	MITIGATION TYPE	SIGNIFICANCE
	Noise nuisance caused by blasting activities	Dependent on the blast, the impact might affect the surrounding community.		Low-medium	Control: Noise control measures	Low
Excavation	Visual intrusion associated with the excavation activities	The visual impact may affect the residents of the immediate area.	Operational phase	Medium-high	Control: Implementation of proper housekeeping	Medium
	Dust nuisance due to excavation activities	Dust will be contained within the property boundaries and will therefore affect only the landowner.		Medium	Control: Dust suppression	Low
	Noise nuisance generated by excavation equipment	The noise impact should be contained within the boundaries of the property, but might have a periodic impact on the closest residents of Botleng community		Medium-high	Control: Noise control measures	Low
	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	Contamination may		Medium	Control: Implementation of	Low

NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE	MITIGATION TYPE	SIGNIFICANCE
	area with hydrocarbons or hazardous waste materials	cause surface or ground water contamination if not addressed.			waste management	
	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 of Botleng community		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 and vehicles transporting the	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
	material					
	Loss of material due to ineffective storm water handling	Impact will affect income of applicant.		Low-medium	Control: Storm water control measures	Low
	Weed and invader plant infestation of the area due to soil disturbance	Biodiversity		Low-medium	Control and remedy: Implementation of weed control	Low
	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.		Medium	Control: Dust suppression	Low
	Degradation of access roads	All road users will be affected.		Medium	Control and remedy: Road management	Low-medium
	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 of Botleng community		Medium	Control: Noise management monitoring and management	Low
	Contamination of area with hydrocarbons or hazardous waste	Contamination may cause surface or ground water contamination if not addressed		Medium	Control: Implementation of waste management	Low


NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE	MITIGATION TYPE	SIGNIFICANCE
Sloping and landscaping during rehabilitation	Soil erosion	Biodiversity	Decommissioning phase	Low-medium	Control: Soil management	Low
	Health and safety risk posed by un-sloped areas	Impact will affect the employees and residents of the property		Medium-high	Control: Health and safety monitoring and management	Low
	Dust nuisance caused during sloping and landscaping	Dust will be contained within the property boundaries and will therefore affect only the landowner		Low-medium	Control: Dust suppression	Low
	Noise nuisance caused by machinery	The noise impact should be contained within the boundaries of the property, but might have a periodic impact on the closest residents of Botleng community		Low-medium	Control: Noise monitoring	Low
	Contamination of area with hydrocarbons or hazardous waste	Contamination may cause surface/ground water contamination if not addressed		Low-medium	Control: Waste management	Low
Replacing of topsoil and rehabilitation of disturbed area	Loss of reinstated topsoil due to the absence of vegetation	Biodiversity and soil management	Decommissioning phase	Low-medium	Control: Soil management	Low
	Infestation of the area by weed and	Biodiversity and soil management		Low-medium	Control and remedy: Implementation of weed	Low




NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE	MITIGATION TYPE	SIGNIFICANCE
	invader plants				control	

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

3.17 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. Attach specialist studies as appendix.

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 study	 Monitoring <ul style="list-style-type: none"> Conduct water monitoring and implement remedial actions as required and effective rehabilitation to as close to pre-mining conditions as practically possible. 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. 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 	X	See section 3.1.7.2 and appendix 10

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
	<p>conducted annually.</p> <ul style="list-style-type: none">  Modelling <ul style="list-style-type: none"> ○ 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.  Water contamination <ul style="list-style-type: none"> ○ 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 <ul style="list-style-type: none"> ○ 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. 		

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
Hydrological study	<ul style="list-style-type: none"> ✚ Monitoring of the surface water quality shall be carried out regularly during the project's construction and operating phases; ✚ The project's development process will be undertaken during the dry months to mitigate pollutant runoff; ✚ 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; ✚ Where mining infrastructure is required across natural water courses, new storm water infrastructure such as pipes and culverts could replace the hydraulic function currently being offered by natural water courses. 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; ✚ Prevention of pollution of surface water resources and impacts on other surface water users by training workers to prevent pollution, equipment and vehicle maintenance, fast and effective cleanup of spills, effective waste management, manage clean and dirty water in accordance. 		See section 3.1.7.1. and appendix 10
Soil study	<ul style="list-style-type: none"> ✚ 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. ✚ Final surface rehabilitation of all disturbed areas during mine activities and Rehabilitation of unnecessary water management facilities once appropriate to do so. 	X	See section 3.1.6. and appendix 10

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 style="list-style-type: none"> ✚ 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. ✚ Limit impacts to the footprints to keep physical impacts as small as possible. Areas for road, site lay-out should be minimized, dust generation. ✚ 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. ✚ Soil monitoring should be implemented during the life of the mine. 		
Rehabilitation plan	<ul style="list-style-type: none"> ✚ It is recommended that the financial provision for closure and rehabilitation be annually updated as per the requirements of the MPRDA. ✚ Surface water monitoring of the pans and associated wetlands surrounding the project area is to be undertaken to determine the impacts associated with operations of the proposed mine. ✚ Regular audits should be undertaken by a soil scientist during the soil stripping process. This will guarantee that soil is stripped and stockpiled correctly ✚ Regular audits should be undertaken to monitor the progress of areas that have been rehabilitated ✚ Long term management of the rehabilitated areas will be required via contractual agreements with land owners in the area and rehabilitation should also be undertaken to best practice ✚ An independent Environmental Assessment Practitioner (Singo Consulting Pty Ltd) shall 	X	See appendix 10

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
	<p>be appointed to ensure compliance with requirements of the Final Rehabilitation, decommissioning and Closure Plan</p> <ul style="list-style-type: none"> ✚ All the affected department such as the MTPA and DWS should be given a monthly performance report during mine activities. ✚ All the affected department must be invited during and after rehabilitation for their input. 		

3.18 Environmental impact statement

3.18.1 Summary of the key findings of the EIA

The key findings of the EIA are as follows:

- The project entails the establishment of an open cast 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 mine pit will be used to gain access to the site. No new roads are necessary.
- The applicant's off-site workshop will be used for servicing vehicles, thereby reducing the risk of hazardous spills and contamination at the mining site.
- Due to the remote setting of the mine area, 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 surface water resources as the nearest water resource is located within 2km radius of the permit area. However, proper storm water and waste management, however, must be implemented on the site in order to minimise the potential of pollution.

3.18.2 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.

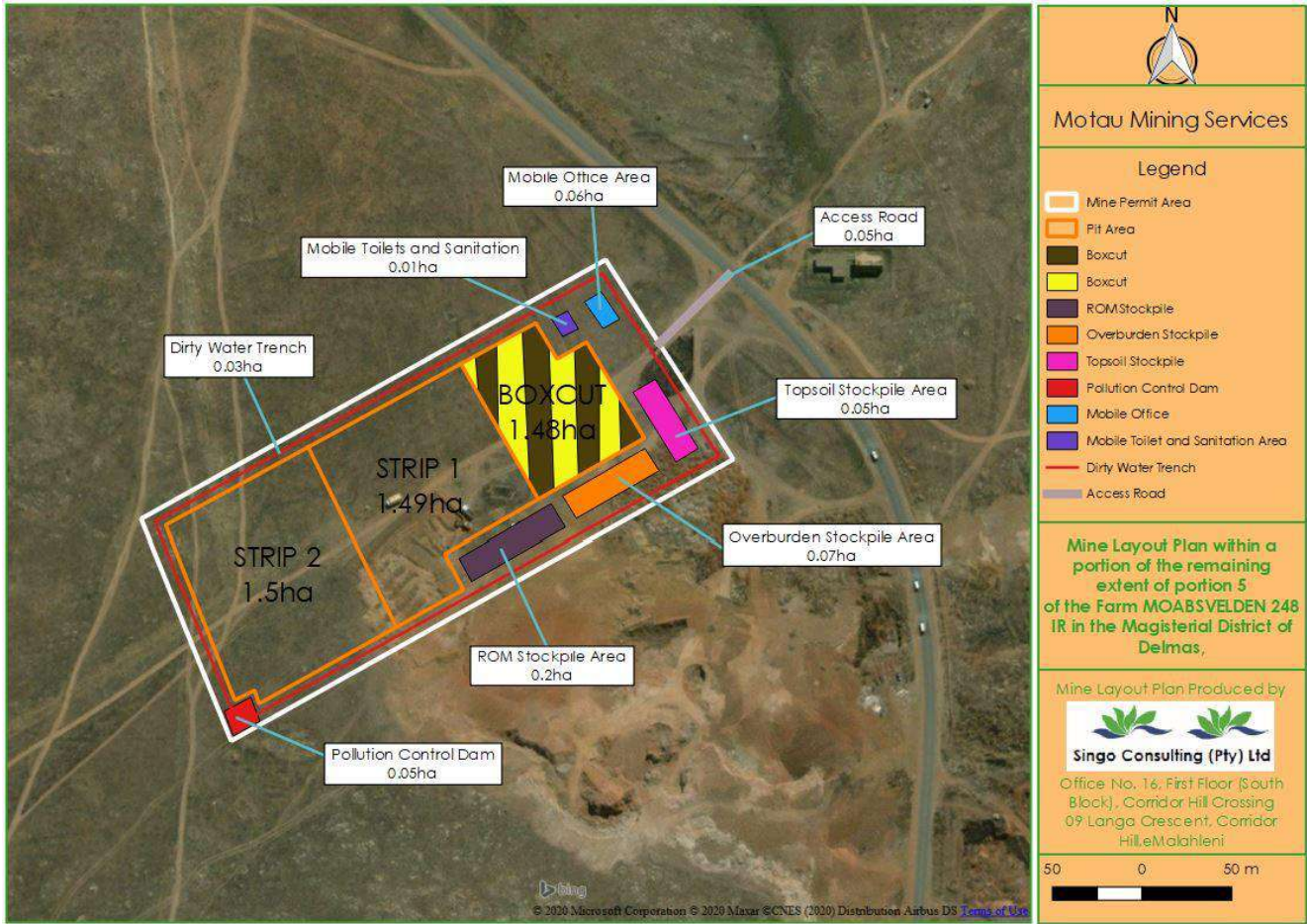


Figure 34: Layout plan of the proposed mining permit area

3.18.3 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 Delmas area.

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 the material	Low-medium
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

3.19 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 EMPr guidelines. Compliance to be monitored by the Environmental Control Officer.	<ul style="list-style-type: none"> • Control dust liberation into the surrounding environment by using water spraying and/or other dust allaying agents. • Limit speed on the access roads to 40km/h to prevent the generation of excess dust. • 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. • Assess effectiveness of dust suppression equipment. • Ensure the crusher plant has operational water sprayer to alleviate dust generation from the conveyor belts.
Noise handling	Site Manager to ensure compliance with EMPr	<ul style="list-style-type: none"> • Ensure that employees and staff conduct themselves in an acceptable manner while on site.

Management objectives	Role	Management outcomes
	guidelines. Compliance to be monitored by the Environmental Control Officer.	<ul style="list-style-type: none"> • No loud music may be permitted at the mining area. • Ensure that all mining vehicles are equipped with silencers and maintained in a road worthy condition in terms of the Road Transport Act. • Plan the type, duration and timing of the blasting procedures with due cognizance of other land users and structures in the vicinity. • Notify surrounding land owners in writing prior to blasting.
Management of weed/ invader plants	Site Manager to ensure compliance with EMPr guidelines. Compliance to be monitored by the Environmental Control Officer.	<ul style="list-style-type: none"> • Implement a weed and invader plant control management plan. • Control declared invader or exotic species on the rehabilitated areas. • Keep the temporary topsoil stockpiles free of weeds.
Surface and storm water handling	Site Manager to ensure compliance with EMPr guidelines. Compliance to be monitored by the Environmental Control Officer.	<ul style="list-style-type: none"> • Divert storm water around topsoil heaps, stockpile areas and access roads to prevent erosion and material loss. • Divert runoff water around stockpile areas with trenches and contour structures to prevent erosion of work areas. • 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 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 EMPr guidelines. Compliance to be monitored by the Environmental Control Officer. Blasting contractor to comply with national blasting requirements.	<ul style="list-style-type: none"> • Plan the type, duration and timing of the blasting procedures with due cognizance of other land users and structures in the vicinity. • Inform the surrounding landowners and communities of any blasting event. • Use noise mufflers and/or soft explosives during blasting, limit fly rock. • Give audible warning of a pending blast at least 3 minutes in advance of the blast. • Remove all fly rock (of diameter 150 mm and larger) which falls beyond the working area, with the rock spill. • Ensure that workers have access to the correct PPE as required by law. • Ensure all operations comply with the Occupational Health and Safety Act.
Waste management	Site Manager to ensure compliance with EMPr	<ul style="list-style-type: none"> • Ensure no waste pile is established within 100 m of the edge of any river channel or other water bodies.

Management objectives	Role	Management outcomes
	guidelines. Compliance to be monitored by the Environmental Control Officer.	<ul style="list-style-type: none"> • Ensure regular vehicle maintenance take place within the service bay area of the off-site workshop. 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. • 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. • 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. • Ensure availability of suitable covered, conveniently placed receptacles at all times for waste disposal. • 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 at Witbank. Prevent refuse from being dumped on or in the vicinity of the mine area. • Biodegradable refuse to be handled as indicated above.
Management of access roads	Site Manager to ensure compliance with EMPr guidelines. Compliance to be monitored by the Environmental Control Officer.	<ul style="list-style-type: none"> • Divert storm water around access roads to prevent erosion. • Erosion of access road: Restrict vehicular movement to existing access routes to prevent crisscrossing of tracks through undisturbed areas.
Topsoil handling	Site Manager to ensure compliance with EMPr guidelines. Compliance to be monitored by the Environmental Control Officer.	<ul style="list-style-type: none"> • Remove the first 300mm of topsoil in strips and store at stockpile area. • Keep the temporary topsoil stockpiles free of weeds. • 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. • 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. • Seed the stockpiled topsoil heaps if vegetation does not re-establish within 6 months of stockpiling. • Divert storm- and runoff water around the stockpile area and access roads to prevent erosion.
Fauna and flora	Site Manager to ensure compliance with EMPr	<ul style="list-style-type: none"> • Ensure no fauna is caught, killed, harmed, sold or played with.

Management objectives	Role	Management outcomes
	guidelines. Compliance to be monitored by the Environmental Control Officer.	<ul style="list-style-type: none"> • 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. • Do not remove plants/trees without ECO approval.

3.20 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 should be considered for inclusion in the environmental authorisation.

3.21 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 during site inspections and background information gathering.

3.22 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.

3.23 Period for which the Environmental Authorisation is required

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

3.24 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.

3.25 Financial provision

State the amount required to manage and rehabilitate the environment.

A financial provision of R1 235 321 is proposed for the mining permit application.


3.25.1 Explain how the aforesaid amount was derived

The amount was derived from the quantum calculation.

3.25.2 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, etc.

CALCULATION OF THE QUANTUM



MP 30/5/1/3/2/12552 MP

Applicant:

Evaluator:

Deshney Mapoko

Ref No.:

Date:

Oct-20

No.	Description	Unit	A	B	C	D	E=A*B*C*D
			Quantity	Master Rate	Multiplication factor	Weighting factor 1	Amount (Rands)
1	Dismantling of processing plant and related structures (including overland conveyors and powerlines)	m3	0	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 structures	m2	0	336	1	1	0
3	Rehabilitation of access roads	m2	500	41	1	1	20500
4 (A)	Demolition and rehabilitation of electrified railway lines	m	0	395	1	1	0
4 (A)	Demolition and rehabilitation of non-electrified railway lines	m	0	216	1	1	0
5	Demolition of housing and/or administration facilities	m2	600	455	1	1	273000
6	Opencast rehabilitation including final voids and ramps	ha	4,47	238697	0,1	1	106697,559
7	Sealing of shafts adits and inclines	m3	0	122	1	1	0
8 (A)	Rehabilitation of overburden and spoils	ha	0,07	159131	1	1	11139,17
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	4,99	126059	0,1	1	62903,441
11	River diversions	ha	0	126059	1	1	0
12	Fencing	m	0	144	1	1	0
13	Water management	ha	0,03	47931	1	1	1437,93
14	2 to 3 years of maintenance and aftercare	ha	5	16776	1	1	83880
15 (A)	Specialist study	Sum	0	0	1	1	0
15 (B)	Specialist study	Sum	0	0	1	1	0
Sub Total 1							838340,75

1	Preliminary and General	100600,89	weighting factor 2	100600,89
2	Contingencies		83834,075	83834,075
Subtotal 2				1022775,72
VAT (15%)				212545,57
Grand Total				1235321

SIGN

DATE

Deshney Mapoko

2020/10/05

Figure 35: Calculation of the quantum for the proposed mining permit application

The amount of **R1 235 321** 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.

3.26 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:

3.26.1 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, 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 open cast will be established on virgin ground with no activity and minimal vegetation cover. The open cast 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 mine area, 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.

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 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.

3.26.2 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, attach the investigation report as appendix and confirm that the applicable mitigation is reflected herein.

No area of archaeological or cultural importance could be identified during the site inspection.

3.27 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. The following alternatives were considered:

- Establishment of an open cast 1 km away from the residence or any form of development vs. establishment of an open cast in an un-utilised, partially virgin area (preferred alternative).
- Open cast 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 herein, as required.

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

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, this map has been compiled and is attached as appendix.

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 open cast will either be sloped at 1:3 to the pit floor to prevent soil erosion, or stepped by creating benches of not more than 3 m high. The applicant will comply with the minimum closure objectives as prescribed by DMRE and detailed below.

Rehabilitation of the excavated area:

- Rocks and coarse material removed from the excavation must be deposited 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 EMPr is not adhered to.

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 of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
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 ²	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.
Stripping and stockpiling	Site establishment/	5 ha	Visual mitigation	• Dust and Noise:	Throughout the site

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
of topsoil	construction phase		<ul style="list-style-type: none"> • The site must be neat and kept in good condition at all times. • Upon closure, the site must be rehabilitated and sloped to ensure that visual impact on the aesthetic value of the area is minimal. <p>Dust handling</p> <ul style="list-style-type: none"> • 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. • Speed on the access roads must be limited to 40km/h to prevent excess dust generation. • Roads must be sprayed with water or an environmentally-friendly dust-allaying agent that contains no PCBs (e.g. DAS products) if dust is generated above acceptable limits. <p>Noise handling</p> <ul style="list-style-type: none"> • The applicant must ensure that staff 	<p>NEMAQA, 2004</p> <ul style="list-style-type: none"> • Regulation 6(1) • Weeds: CARA, 1983 • Storm Water: NWA, 1998 • Waste: NEM:WA, 2008 	establishment phase.

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<p>conduct themselves in an acceptable manner while on site, both during work hours and after hours.</p> <ul style="list-style-type: none"> • 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. <p>Weed and invader plant management</p> <ul style="list-style-type: none"> • 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 following control methods can be used: <ul style="list-style-type: none"> ○ The plants can be uprooted, felled or cut off and can be 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. 		

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<ul style="list-style-type: none"> ○ The temporary topsoil stockpiles must be kept free of weeds. <p>Storm water handling</p> <ul style="list-style-type: none"> • 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. <p>Waste management</p> <ul style="list-style-type: none"> • 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 in the service bay area of the off-site workshop. If emergency repairs are needed on equipment not able to move to the workshop, 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 the workshop to ensure proper disposal. 		

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<ul style="list-style-type: none"> Any effluents containing oil, grease or 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

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<ul style="list-style-type: none"> • The type, duration and timing of the blasting procedures must be planned with due cognizance 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 (of diameter 150mm 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 OHSA. <p>Dust handling</p> <ul style="list-style-type: none"> • Dust liberation into the surrounding environment must be effectively controlled by the use of, inter alia, water spraying and/or other dust-allaying agents. • Speed on the access roads must be 	<ul style="list-style-type: none"> • MHSA, 1996 • OHSA, 1993 • OHSAS 18001 <p>Dust and noise</p> <p>NEMAQA, 2004 Regulation 6(1)</p>	blasting event.

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<p>limited to 40km/h to prevent the generation of excess dust.</p> <p>Noise handling</p> <ul style="list-style-type: none"> • 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 maintained in a road 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	<p>Visual mitigation</p> <ul style="list-style-type: none"> • The site needs to have a neat appearance and be kept in good condition at all times. • Upon closure the site needs to be rehabilitated and sloped to ensure that the visual impact on the aesthetic 	<p>Dust and noise NEM:AQA, 2004 Regulation 6(1)</p> <p>Health and safety MHSA, 1996 OHSA, 1993 OHSAS 18001</p>	Throughout the operational phase

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<p>value of the area is kept to a minimum.</p> <p>Dust handling</p> <ul style="list-style-type: none"> • 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. • Speed on the access roads must be 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 (e.g. DAS products) if dust is generated above acceptable limits. <p>Noise handling</p> <ul style="list-style-type: none"> • 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. 	<p>Fauna and flora NEM:BA, 2004</p> <p>Waste NEMWA, 2008</p> <p>Weeds CARA, 1983</p>	

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<ul style="list-style-type: none"> • All mining vehicles must be equipped with silencers and maintained in a road worthy condition in terms of the Road Transport Act. <p>Management of health and safety risks</p> <ul style="list-style-type: none"> • Workers must have access to the correct PPE as required by law. • All operations must comply with the OHSA. <p>Protection of fauna and flora</p> <ul style="list-style-type: none"> • The site manager should ensure that no fauna is caught, killed, harmed, sold or played with. • Workers should 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 ECO. <p>Waste management</p> <ul style="list-style-type: none"> • 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 		

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<p>take place within the service bay area of the off-site workshop. If emergency repairs are needed on equipment not able to move to the workshop, 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 the workshop in order to ensure proper disposal.</p> <ul style="list-style-type: none"> 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, 		

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<p>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.</p> <ul style="list-style-type: none"> • Biodegradable refuse generated must be handled as indicated above. <p>Management of weed/invaser plants</p> <ul style="list-style-type: none"> • 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 following control methods can be used: <ul style="list-style-type: none"> ○ The plants can be uprooted, felled or cut off and can be destroyed completely. ○ The plants can be treated with an herbicide that is registered for use in connection therewith and in 		

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<p>accordance with the directions for the use of such an herbicide.</p> <ul style="list-style-type: none"> The temporary topsoil stockpiles need to be kept free of weeds. 		
Crushing	Operational phase	0.3ha	<p>Dust handling</p> <ul style="list-style-type: none"> Dust liberation into the surrounding environment must be effectively controlled by 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. Speed on the access roads must be limited to 40km/h to prevent excess dust generation. The crusher plant must have operational water sprayers to alleviate dust generation from conveyor belts. <p>Noise handling</p> <ul style="list-style-type: none"> The applicant must ensure that staff conduct themselves in an acceptable manner while on site, during work hours and after hours. No loud music permitted at the mining 	<p>Dust and noise NEMAQA 2004</p> <p>Waste NEMWA 2008</p>	Throughout the operational phase

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<p>area.</p> <ul style="list-style-type: none"> • All mining vehicles must be equipped with silencers and kept roadworthy in terms of the Road Transport Act. <p>Waste management</p> <ul style="list-style-type: none"> • 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 in the service bay of the off-site workshop. If emergency repairs are needed on equipment not able to move to the workshop, 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 the workshop 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 		

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<p>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.</p> <ul style="list-style-type: none"> • 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 transporting	Operational phase	0.7ha	<p>Visual mitigation</p> <ul style="list-style-type: none"> • The site must be neat and be kept 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. <p>Storm water handling</p>	<p>Storm water NWA, 1998</p> <p>Weeds CARA, 1983</p> <p>Dust and noise NEMAQA, 2004 Regulation 6(1)</p> <p>Waste</p>	Throughout operational phase

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<ul style="list-style-type: none"> • Storm water must be diverted around 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. • 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 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 	NEMWA, 2008	

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<p>systems.</p> <ul style="list-style-type: none"> • 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. <p>Management of weed/invaser plants</p> <ul style="list-style-type: none"> • 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 following control methods can be used: <ul style="list-style-type: none"> ○ The plants can be uprooted, felled or cut off and can be destroyed completely. ○ The plants can be treated with an herbicide that is registered for use in connection therewith and in 		

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<p>accordance with the directions for the use of such an herbicide.</p> <ul style="list-style-type: none"> • The temporary stockpile area must be kept free of weeds. <p>Dust handling</p> <ul style="list-style-type: none"> • 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. • Speed on the access roads must be limited to 40km/h to prevent excess dust generation. • Roads must be sprayed with water or an environmentally-friendly dust-allaying agent that contains no PCBs (e.g. DAS products) if dust is generated above acceptable limits. <p>Management of access roads</p> <ul style="list-style-type: none"> • Storm water should be diverted around the access roads to prevent erosion. • Vehicular movement must be restricted 		

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<p>to existing access routes to prevent crisscrossing of tracks through undisturbed areas.</p> <ul style="list-style-type: none"> • Rutting and erosion of the access road caused as a result of the mining activities must be repaired by the applicant. <p>Noise handling</p> <ul style="list-style-type: none"> • 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. <p>Waste management</p> <ul style="list-style-type: none"> • 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 in the service bay area of the off-site workshop. If emergency repairs are needed on equipment not 		

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<p>able to move to the workshop, 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 the workshop for proper disposal.</p> <ul style="list-style-type: none"> 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 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 of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<p>Specific precautions should be taken to prevent refuse from being dumped on or in the vicinity of the mine area.</p> <ul style="list-style-type: none"> • Biodegradable refuse generated must be handled as indicated above. 		
Sloping and landscaping during rehabilitation	Decommissioning phase	5 ha	<p>Storm water handling</p> <ul style="list-style-type: none"> • Storm water must be diverted around the rehabilitated area to prevent erosion and loss of reinstated material. <p>Management of health and safety risks</p> <ul style="list-style-type: none"> • Excavations have to be rehabilitated as stipulated in the closure plan to ensure the site is safe upon closure. • Workers must have access to the correct PPE as required by law. • All operations must comply with the OHSA. <p>Dust handling</p> <ul style="list-style-type: none"> • 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 	<p>Storm water NWA, 1998</p> <p>Health and safety MHSA, 1996 OHSA, 1993 OHSAS 18001</p> <p>Dust and noise NEMAQA 2004, Regulation 6(1)</p> <p>Waste NEMWA 2008</p>	Upon cessation of mining

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<p>effectiveness.</p> <ul style="list-style-type: none"> • Speed on the access roads must be limited to 40km/h to prevent excess dust generation. • Roads must be sprayed with water or an environmentally friendly dust-allaying agent that contains no PCBs (e.g. DAS products) if dust is generated above acceptable limits. <p>Noise handling</p> <ul style="list-style-type: none"> • 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. <p>Waste management</p> <ul style="list-style-type: none"> • 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 		

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<ul style="list-style-type: none"> 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 together with the polluted soil and disposing of it at a recognised facility. Proof should be filed. Suitable covered receptacles must be available at all times and conveniently placed for waste disposal. 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. Biodegradable refuse generated must be handled as indicated above. 		

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
Replacing of topsoil and rehabilitation of disturbed area	Decommissioning phase	5 ha	Rehabilitation of excavated area <ul style="list-style-type: none"> • 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 were 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 	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 of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<p>on the soil arising from the mining operation be corrected and the area seeded with a vegetation seed mix to his or her specification.</p> <p>Rehabilitation of plant area</p> <ul style="list-style-type: none"> • 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 topsoil returned to 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): <ul style="list-style-type: none"> ◦ 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 will be seeded with a vegetation seed mix adapted to reflect the local indigenous flora if 		

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<p>natural vegetation does not re-establish within 6 months of site closure.</p> <ul style="list-style-type: none"> ○ 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. 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 fertilized if 		

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<p>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.</p> <ul style="list-style-type: none"> ○ 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. <p>Final rehabilitation</p> <ul style="list-style-type: none"> • Rehabilitation of the surface area will entail landscaping, levelling, top dressing, land preparation, seeding (if required) and 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 		

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<p>the MPRDA).</p> <ul style="list-style-type: none"> • Waste material of any description, including receptacles, scrap, rubble and tyres, will be removed entirely from the mining area and disposed of at a recognized 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 regarded as Category 1 weeds according to CORA, 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.
Topsoil stripping and stockpiling	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	Control: Implementation of proper housekeeping	<ul style="list-style-type: none"> Impact on the surrounding environment mitigated until rehabilitation standards can be implemented.
	Dust nuisance caused by soil disturbance.	Dust will be contained within property boundaries and therefore affect		Control: Dust suppression	<ul style="list-style-type: none"> Fallout dust levels has to comply with the acceptable dust fall rate published for non-residential areas in the National Dust Control Regulations 2013 – $600 < \text{Dust Fall}$

Activity	Potential impact	Aspects affected	Phase	Mitigation type	Standard to be achieved
		only the landowner.			<p>< 1 200 mg/m²/day.</p> <ul style="list-style-type: none"> Gravimetric dust levels have to comply with the standard published in the NIOSH guidelines – particulates >1/10th of the occupational exposure limit. NEMAQA 2004, Regulation 6(1)
	Noise nuisance caused by machinery stripping and stockpiling the topsoil.	The noise impact should be contained within property boundaries, but might have a periodic impact on the closest residents of Botleng community.		Control: Noise control measures	<ul style="list-style-type: none"> Noise levels on the site must be managed and needs to comply with the standards stipulated in NEMAQA, 2004 Regulation 6(1) as well as the noise standards of SANS 10103:2008 Employees working in areas with noise levels of more than 82dBA need to be issue with hearing protection.
	Infestation of the topsoil heaps by weeds and invader plants	Biodiversity		Control and remedy: Implementation of weed control	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> The impact must be avoided through the implementation of storm water management.
	Contamination of area with hydrocarbons or	Contamination may cause surface or		Control and remedy:	<ul style="list-style-type: none"> The impact must be avoided through the implementation of the mitigation

Activity	Potential impact	Aspects affected	Phase	Mitigation type	Standard to be achieved
	hazardous waste materials.	ground water contamination if not addressed		Implementation of waste management	measures stipulated in this document. • Should spillage occur, the area needs to be cleaned in accordance with the standards of the NEMWA, 2008.
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 style="list-style-type: none"> • Impact must be avoided through compliance with the MHSA, 1996, OHSA, 1993 and OHSAS 18001 • Fallout dust levels must comply with the acceptable dust fall rate published for non-residential areas in the National Dust Control Regulations 2013 – $600 < \text{Dust Fall} < 1\,200 \text{ mg/m}^2/\text{day}$.
	Dust nuisance caused by blasting activities	Dependent on the blast, the impact might affect the surrounding community.		Control: Dust suppression	Gravimetric dust levels have to comply with the standard published in the NIOSH guidelines particulates $>1/10^{\text{th}}$ of the occupational exposure limit. NEMAQA, 2004 Regulation 6(1)
	Noise nuisance caused by blasting activities	Dependent on the blast, the impact might affect the surrounding community.		Control: Noise control measure	<ul style="list-style-type: none"> • 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 • Employees working in areas with noise levels of more than 82dBA need to be issue with hearing protection.
Excavation	Visual intrusion associated with the	The visual impact may affect the	Operational phase	Control: Implementation of	<ul style="list-style-type: none"> • Impact on the surrounding environment mitigated until rehabilitation standards

Activity	Potential impact	Aspects affected	Phase	Mitigation type	Standard to be achieved
	excavation activities	residents of the immediate area.		proper housekeeping	can be implemented.
	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 style="list-style-type: none"> Fallout dust levels must comply with the acceptable dust fall rate published for non-residential areas, as per National Dust Control Regulations 2013 – $600 < \text{Dust Fall} < 1\,200 \text{ mg/m}^2/\text{day}$. Gravimetric dust levels must comply with the standard published in the NIOSH guidelines –Particulates $>1/10^{\text{th}}$ of the occupational exposure limit. NEMAQA, 2004 Regulation 6(1).
	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 of Botleng community.		Control: Noise control measures	<ul style="list-style-type: none"> 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. Employees working in areas with noise levels of more than 82dBA need to be issue with hearing protection.
	Unsafe working conditions for employees.	Impact might affect employees		Control: Health and safety monitoring and management	<ul style="list-style-type: none"> Impact must be avoided through compliance with the MSHA, 1996, OSHA, 1993 and OHSAS 18001
Excavation	Negative impact on the fauna and flora of	Biodiversity	Operational phase	Control: Protection of fauna and flora	<ul style="list-style-type: none"> The impact must be avoided through implementation of the mitigation

Activity	Potential impact	Aspects affected	Phase	Mitigation type	Standard to be achieved
	the area.			through operational phase	measures stipulated in this document. • NEMBA, 2004.
	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 style="list-style-type: none"> The impact should be avoided through the implementation the mitigation measures stipulated in this document. Should spillage however occur the area needs to be cleaned in accordance with the standards of the NEMWA, 2008.
	Weed and invader plant infestation of the area.	Biodiversity		Control: Implementation of weed control	<ul style="list-style-type: none"> 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.
Crushing	Dust nuisance due to the crushing activities	Dust will be contained within the property boundaries and will therefore affect only the landowner.	Operational phase	Control: Dust suppression	<ul style="list-style-type: none"> Fallout dust levels has to comply with the acceptable dust fall rate published for non-residential areas in the National Dust Control Regulations 2013 – $600 < \text{Dust Fall} < 1\,200 \text{ mg/m}^2/\text{day}$. Gravimetric dust levels have to comply with the standard published in the NIOSH guidelines – Particulates $>1/10^{\text{th}}$ of the occupational exposure limit. NEMAQA, 2004 Regulation 6(1).
	Noise nuisance generated by the crushing activities	The noise impact should be contained within the boundaries of the property, but		Control: Noise control measures	<ul style="list-style-type: none"> 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

Activity	Potential impact	Aspects affected	Phase	Mitigation type	Standard to be achieved
		might have a periodic impact on the closest residents of Botleng community..			<i>standards of SANS 10103:2008.</i> <ul style="list-style-type: none"> Employees working in areas with noise levels of more than 82dBA need to be issue with hearing protection.
	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 style="list-style-type: none"> The impact should be avoided through the implementation the mitigation measures stipulated in this document. Should spillage however occur the area needs to be cleaned in accordance with the standards of the NEMWA, 2008.
	Loss of material due to ineffective storm water handling.	Impact will affect income of applicant.		Control: Storm water control measures	<ul style="list-style-type: none"> 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 style="list-style-type: none"> 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.
Stockpiling 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 style="list-style-type: none"> Fallout dust levels has to comply with the acceptable dust fall rate published for non-residential areas in the National Dust Control Regulations 2013 – $600 < \text{Dust Fall} < 1\,200 \text{ mg/m}^2/\text{day}$. Gravimetric dust levels have to comply with the standard published in the NIOSH guidelines – Particulates $>1/10^{\text{th}}$ of the

Activity	Potential impact	Aspects affected	Phase	Mitigation type	Standard to be achieved
					occupational exposure limit. • NEMAQA, 2004 Regulation 6(1).
	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 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 of Botleng community.		Control: Noise management monitoring and management	<ul style="list-style-type: none"> • 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. • Employees working in areas with noise levels of more than 82dBA need to be issue with hearing protection.
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 style="list-style-type: none"> • The impact should be avoided through the implementation the mitigation measures stipulated in this document. • Should spillage however occur the area needs to be cleaned in accordance with the standards of the NEM: WA, 2008.
	Soil erosion	Biodiversity		Control: Soil management	<ul style="list-style-type: none"> • The impact should be avoided through the implementation the mitigation measures stipulated in this document. • CARA, 1993
	Health and safety risk posed by un-sloped	Impact will affect employees and		Control: Health and safety monitoring	• The impact should be avoided through compliance with the standards of the

Activity	Potential impact	Aspects affected	Phase	Mitigation type	Standard to be achieved
	areas	residents of the property		and management.	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 style="list-style-type: none"> Fallout dust levels has to comply with the acceptable dust fall rate published for non-residential areas in the National Dust Control Regulations 2013 – $600 < \text{Dust Fall} < 1\,200 \text{ mg/m}^2/\text{day}$. Gravimetric dust levels have to comply with the standard published in the NIOSH guidelines – Particulates $>1/10$ of the occupational exposure limit. NEM:AQA, 2004 Regulation 6(1).
	Noise nuisance caused by machinery.	The noise impact should be contained within the boundaries of the property, but might have a periodic impact on the closest residents of Botleng community.		Control: Noise monitoring	<ul style="list-style-type: none"> 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. Employees working in areas with noise levels of more than 82dBA need to be issue with hearing protection.
	Contamination of area with hydrocarbons or hazardous waste materials.	Contamination may cause surface or ground water contamination if not addressed.		Control: Waste management	<ul style="list-style-type: none"> The impact should be avoided through the implementation the mitigation measures stipulated in this document. Should spillage however occur the area needs to be cleaned in accordance with the standards of the NEM: WA, 2008.

Activity	Potential impact	Aspects affected	Phase	Mitigation type	Standard to be achieved
Replacing of topsoil and rehabilitation of disturbed area	Loss of reinstated topsoil due to the absence of vegetation	Biodiversity and soil management	Decommissioning phase	Control: Soil management	<ul style="list-style-type: none"> • The impact should be avoided through the implementation the mitigation measures stipulated in this document. • CARA, 1993
	Infestation of the area by weed and invader plants.	Biodiversity and soil management		Control and remedy: Implementation of weed control	<ul style="list-style-type: none"> • 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.

4.9 Impact management actions

A description of impact management actions, identifying the manner in which the impact management objectives and outcomes in paragraph (c) and (d) will be achieved.

Activity	Potential impact	Mitigation type	Time period for implementation	Compliance with standards
Whether listed or not, e.g. excavations, blasting, stockpiles, discard dumps/dams, loading, hauling, transport, water supply dams, 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.	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. E.g. Modify through alternative method, control through noise control, control through management and monitoring, and remedy through rehabilitation.	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 the cessation of mining, bulk sampling or alluvial diamond prospecting as the case may be.	A description of how each of the recommendations in 2.11.6 read with 2.12 and 2.15.2 herein will comply with any prescribed environmental management standards or practices that have been identified by Competent Authorities
Topsoil stripping and stockpiling	Visual intrusion associated with the establishment of the mining area.	Control: Implementation of proper housekeeping	To be implemented daily throughout the site establishment / construction phase: <ul style="list-style-type: none"> • Daily compliance monitoring by site management. • Quarterly compliance monitoring of site by an 	Impact on the surrounding environment must be mitigated until rehabilitation standards can be implemented in terms of the MRDA.

Activity	Potential impact	Mitigation type	Time period for implementation	Compliance with standards
			<ul style="list-style-type: none"> • Environmental Control Officer. 	
	Dust nuisance caused by the disturbance of soil.	Control: Dust suppression	<p>To be implemented daily throughout the site establishment / construction phase:</p> <ul style="list-style-type: none"> • Daily compliance monitoring by site management. • Quarterly compliance monitoring of site by an • Environmental Control Officer. 	<ul style="list-style-type: none"> • Fallout dust levels has to comply with the acceptable dust fall rate published for non-residential areas in the National Dust Control Regulations 2013 – $600 < \text{Dust Fall} < 1200 \text{ mg/m}^2/\text{day}$. • Gravimetric dust levels have to comply with the standard published in the NIOSH guidelines – Particulates $> 1/10^{\text{th}}$ of the occupational exposure limit NEMAQA, 2004 Regulation 6(1)
	Noise nuisance caused by machinery stripping and stockpiling the topsoil.	Control: Noise control measures	<p>To be implemented daily throughout the site establishment / construction phase:</p> <ul style="list-style-type: none"> • Daily compliance monitoring by site management. • Quarterly compliance monitoring of site by an • Environmental Control Officer. 	<ul style="list-style-type: none"> • 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. • Employees working in areas with noise levels of more than 82dBA need to be issue with hearing protection.
	Infestation of the topsoil heaps by weeds and invader plants	Control and remedy: Implementation of weed control	To be implemented when necessary throughout the site establishment / construction phase:	<ul style="list-style-type: none"> • The impact should be avoided through the eradication of Category 1 weeds/invader plants in terms of CARA, 1993 as well as the

Activity	Potential impact	Mitigation type	Time period for implementation	Compliance with standards
			<ul style="list-style-type: none"> • Daily compliance monitoring by site management. • Quarterly compliance monitoring of site by an • Environmental Control Officer. 	implementation of the mitigation measures in this document.
	Loss of topsoil due to incorrect storm water management.	Control: Storm water management	<p>To be implemented daily throughout the site establishment / construction phase:</p> <ul style="list-style-type: none"> • Daily compliance monitoring by site management. • Quarterly compliance monitoring of site by an Environmental Control officer 	<ul style="list-style-type: none"> • The impact should be avoided through the implementation of storm water management.
	Contamination of area with hydrocarbons or hazardous waste materials	Control and remedy: Implementation of waste management	<p>To be implemented daily throughout the site establishment / construction phase:</p> <ul style="list-style-type: none"> • Daily compliance monitoring by site management. • Quarterly compliance monitoring of site by an • Environmental Control Officer. 	<ul style="list-style-type: none"> • The impact should be avoided through the implementation of the mitigation measures stipulated in this document. • Should spillage however occur the area needs to be cleaned in accordance with the standards of the NEM: WA, 2008.
Blasting	Health and safety risk posed by blasting activities	Control: Health and safety monitoring and management	<p>To be implemented when necessary throughout the operational phase:</p> <ul style="list-style-type: none"> • Daily compliance monitoring by site management. • Quarterly compliance 	<ul style="list-style-type: none"> • The impact should be avoided through compliance with the standards of the MHSA, 1996, OHSA, 1993 and OHSAS 18001

Activity	Potential impact	Mitigation type	Time period for implementation	Compliance with standards
			monitoring of site by an • Environmental Control Officer.	
	Dust nuisance caused by blasting activities	Control: Dust suppression	To be implemented daily throughout the operational phase: • Daily compliance monitoring by site management. • Quarterly compliance monitoring of site by an • Environmental Control Officer.	<ul style="list-style-type: none"> • Fallout dust levels has to comply with the acceptable dust fall rate published for non-residential areas in the National Dust Control Regulations 2013 – $600 < \text{Dust Fall} < 1200 \text{ mg/m}^2/\text{day}$. • Gravimetric dust levels have to comply with the standard published in the NIOSH guidelines – Particulates $>1/10^{\text{th}}$ of the occupational exposure limit. • NEMAQA, 2004 Regulation 6(1)
	Noise nuisance caused by blasting activities	Control: Noise control measures	To be implemented daily throughout the operational phase: • Daily compliance monitoring by site management. • Quarterly compliance monitoring of site by an • Environmental Control Officer.	<ul style="list-style-type: none"> • 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. • Employees working in areas with noise levels of more than 82dBA need to be issue with hearing protection.
Excavation	Visual intrusion associated with the excavation activities	Control: Implementation of proper housekeeping	To be implemented daily throughout the operational phase:	<ul style="list-style-type: none"> • Impact on the surrounding environment mitigated until rehabilitation standards can be

Activity	Potential impact	Mitigation type	Time period for implementation	Compliance with standards
			<ul style="list-style-type: none"> • Daily compliance monitoring by site management. • Quarterly compliance monitoring of site by an • Environmental Control Officer. 	implemented.
	Dust nuisance due to excavation activities.	Control: Dust suppression	<p>To be implemented daily throughout the operational phase:</p> <ul style="list-style-type: none"> • Daily compliance monitoring by site management. • Quarterly compliance monitoring of site by an • Environmental Control Officer. 	<ul style="list-style-type: none"> • Fallout dust levels has to comply with the acceptable dust fall rate published for non-residential areas in the National Dust Control Regulations 2013 – $600 < \text{Dust Fall} < 1200 \text{ mg/m}^2/\text{day}$ • Gravimetric dust levels have to comply with the standard published in the NIOSH guidelines – Particulates $>1/10^{\text{th}}$ of the occupational exposure limit. • NEM: AQA, 2004 Regulation 6(1).
	Noise nuisance generated by excavation equipment.	Control: Noise control measures	<p>To be implemented daily throughout the operational phase:</p> <ul style="list-style-type: none"> • Daily compliance monitoring by site management. • Quarterly compliance monitoring of site by an • Environmental Control Officer. 	<ul style="list-style-type: none"> • 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. • Employees working in areas with noise levels of more than 82dBA need to be issue with hearing protection.

Activity	Potential impact	Mitigation type	Time period for implementation	Compliance with standards
	Unsafe working conditions for employees.	Control: Health and safety monitoring and management	To be daily throughout the operational phase: <ul style="list-style-type: none"> • Daily compliance monitoring by site management. • Quarterly compliance monitoring of site by an • Environmental Control Officer. 	<ul style="list-style-type: none"> • The impact should be avoided through compliance with the standards of the MHSA, 1996, OHSA, 1993 and OHSAS 18001
	Negative impact on the fauna and flora of the area.	Control: Protection of fauna and flora through operational phase	To be daily throughout the operational phase: <ul style="list-style-type: none"> • Daily compliance monitoring by site management. • Quarterly compliance monitoring of site by an • Environmental Control Officer. 	<ul style="list-style-type: none"> • The impact should be avoided through the implementation of the mitigation measures stipulated in this document. • NEM:BA, 2004.
	Contamination of area with hydrocarbons or hazardous waste materials.	Control: Implementation of waste management	To be implemented daily throughout the operational phase: <ul style="list-style-type: none"> • Daily compliance monitoring by site management. • Quarterly compliance monitoring of site by an • Environmental Control Officer. 	<ul style="list-style-type: none"> • The impact should be avoided through the implementation the mitigation measures stipulated in this document. • Should spillage however occur the area needs to be cleaned in accordance with the standards of the NEM: WA, 2008.
	Weed and invader plant infestation of the area.	Control: implementation of weed control	To be implemented when necessary throughout the operational phase: <ul style="list-style-type: none"> • Daily compliance monitoring by site management. 	<ul style="list-style-type: none"> • 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

Activity	Potential impact	Mitigation type	Time period for implementation	Compliance with standards
			<ul style="list-style-type: none"> • Quarterly compliance monitoring of site by an • Environmental Control Officer. 	measures in this document.
Crushing	Dust nuisance due to the crushing activities	Control: Dust suppression	<p>To be implemented daily throughout the operational phase:</p> <ul style="list-style-type: none"> • Daily compliance monitoring by site management. • Quarterly compliance monitoring of site by an • Environmental Control Officer. 	<ul style="list-style-type: none"> • Fallout dust levels has to comply with the acceptable dust fall rate published for non-residential areas in the National Dust Control Regulations 2013 – $600 < \text{Dust Fall} < 1200 \text{ mg/m}^2/\text{day}$. • Gravimetric dust levels have to comply with the standard published in the NIOSH guidelines – Particulates $>1/10^{\text{th}}$ of the occupational exposure limit. • NEM: AQA, 2004 Regulation 6(1).
	Noise nuisance generated by the crushing activities.	Control: Noise control measures	<p>To be implemented daily throughout the operational phase:</p> <ul style="list-style-type: none"> • Daily compliance monitoring by site management. • Quarterly compliance monitoring of site by an • Environmental Control Officer. 	<ul style="list-style-type: none"> • 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. • Employees working in areas with noise levels of more than 82dBA need to be issue with hearing protection.

Activity	Potential impact	Mitigation type	Time period for implementation	Compliance with standards
	Contamination of area with hydrocarbons or hazardous waste materials.	Control: Implementation of waste management	To be implemented daily throughout the operational phase: <ul style="list-style-type: none"> • Daily compliance monitoring by site management. • Quarterly compliance monitoring of site by an • Environmental Control Officer. 	<ul style="list-style-type: none"> • The impact should be avoided through the implementation the mitigation measures stipulated in this document. • Should spillage however occur the area needs to be cleaned in accordance with the standards of the NEM: WA, 2008.
Stockpiling and transporting	Visual intrusion associated with the stockpiled material and vehicles transporting the material.	Control: Implementation of proper housekeeping	To be implemented daily throughout the operational phase: <ul style="list-style-type: none"> • Daily compliance monitoring by site management. • Quarterly compliance monitoring of site by an • Environmental Control Officer. 	<ul style="list-style-type: none"> • Impact on the surrounding environment mitigated until rehabilitation standards can be implemented.
	Loss of material due to ineffective storm water handling.	Control: Storm water control measures	<ul style="list-style-type: none"> • To be implemented daily throughout the operational phase: • Daily compliance monitoring by site management. • Quarterly compliance monitoring of site by an Environmental Control Officer. 	<ul style="list-style-type: none"> • The impact should be avoided through the implementation of storm water management
	Weed and invader plant infestation of the	Control and remedy: Implementation of weed control	To be implemented when necessary throughout the operational phase:	<ul style="list-style-type: none"> • The impact should be avoided through the eradication of Category 1 weeds/invader plants in

Activity	Potential impact	Mitigation type	Time period for implementation	Compliance with standards
	area due to the disturbance of the soil		<ul style="list-style-type: none"> • Daily compliance monitoring by site management. • Quarterly compliance monitoring of site by an • Environmental Control Officer. 	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	<p>To be implemented daily throughout the operational phase:</p> <ul style="list-style-type: none"> • Daily compliance monitoring by site management. • Quarterly compliance monitoring of site by an • Environmental Control Officer. 	<ul style="list-style-type: none"> • Fallout dust levels has to comply with the acceptable dust fall rate published for non-residential areas in the National Dust Control Regulations 2013 – $600 < \text{Dust Fall} < 1200 \text{ mg/m}^2/\text{day}$. • Gravimetric dust levels have to comply with the standard published in the NIOSH guidelines – Particulates $>1/10^{\text{th}}$ of the occupational exposure limit. • NEM: AQA, 2004 Regulation 6(1).
	Degradation of access roads	Control and remedy: Road management	<p>To be implemented when necessary throughout the operational phase:</p> <ul style="list-style-type: none"> • Daily compliance monitoring by site management. • Quarterly compliance monitoring of site by an • Environmental Control Officer. 	<ul style="list-style-type: none"> • The impact should be avoided through the implementation of the mitigation measures proposed in this document.

Activity	Potential impact	Mitigation type	Time period for implementation	Compliance with standards
	Noise nuisance caused by vehicles.	Control: Noise management monitoring and management	To be implemented daily throughout the operational phase: <ul style="list-style-type: none"> • Daily compliance monitoring by site management. • Quarterly compliance monitoring of site by an • Environmental Control Officer. 	<ul style="list-style-type: none"> • 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. • Employees working in areas with noise levels of more than 82dBA need to be issue with hearing protection.
	Contamination of area with hydrocarbons or hazardous waste materials.	Control: Implementation of waste management	To be implemented daily throughout the operational phase: <ul style="list-style-type: none"> • Daily compliance monitoring by site management. • Quarterly compliance monitoring of site by an • Environmental Control Officer. 	<ul style="list-style-type: none"> • The impact should be avoided through the implementation the mitigation measures stipulated in this document. • Should spillage however occur the area needs to be cleaned in accordance with the standards of the NEMWA, 2008.
Sloping and landscaping during rehabilitation	Soil erosion	Control: Soil management	To be implemented throughout the rehabilitation / closure phase: <ul style="list-style-type: none"> • Daily compliance monitoring by site management. • Compliance monitoring of site by an Environmental Control Officer. 	<ul style="list-style-type: none"> • The impact should be avoided through the implementation the mitigation measures stipulated in this document. • CARA, 1993

Activity	Potential impact	Mitigation type	Time period for implementation	Compliance with standards
	Health and safety risk posed by un-sloped areas	Control: Health and safety monitoring and management.	To be implemented throughout the rehabilitation / closure phase: <ul style="list-style-type: none"> • Daily compliance monitoring by site management. • Compliance monitoring of site by an Environmental Control Officer. 	<ul style="list-style-type: none"> • 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.	Control: Dust suppression	To be implemented throughout the rehabilitation / closure phase: <ul style="list-style-type: none"> • Daily compliance monitoring by site management. • Compliance monitoring of site by an Environmental Control Officer. 	<ul style="list-style-type: none"> • Fallout dust levels has to comply with the acceptable dust fall rate published for non-residential areas in the National Dust Control Regulations 2013 – $600 < \text{Dust Fall} < 1200 \text{ mg/m}^2/\text{day}$. • Gravimetric dust levels have to comply with the standard published in the NIOSH guidelines – Particulates $>1/10^{\text{th}}$ of the occupational exposure limit. • NEM: AQA, 2004 Regulation 6(1).
	Noise nuisance caused by machinery.	Control: Noise monitoring	To be implemented throughout the rehabilitation / closure phase: <ul style="list-style-type: none"> • Daily compliance monitoring by site management. • Compliance monitoring of site by an Environmental Control Officer. 	<ul style="list-style-type: none"> • 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. • Employees working in areas with noise levels of more than 82dBA

Activity	Potential impact	Mitigation type	Time period for implementation	Compliance with standards
				need to be issue with hearing protection.
	Contamination of area with hydrocarbons or hazardous waste materials.	Controls: Waste management	To be implemented throughout the rehabilitation / closure phase: <ul style="list-style-type: none"> • Daily compliance monitoring by site management. • Compliance monitoring of site by an Environmental Control Officer. 	<ul style="list-style-type: none"> • The impact must be avoided through implementation of mitigation measures stipulated in this document. • Should spillage however occur the area needs to be cleaned in accordance with the standards of the NEMWA, 2008.
Replacing of topsoil and rehabilitation of disturbed area	Loss of reinstated topsoil due to the absence of vegetation	Control: Soil management	To be implemented throughout the rehabilitation / closure phase: <ul style="list-style-type: none"> • Daily compliance monitoring by site management. • Compliance monitoring of site by an Environmental Control Officer. 	<ul style="list-style-type: none"> • The impact should be avoided through the implementation the mitigation measures stipulated in this document. • CARA, 1993
	Infestation of the area by weed and invader plants.	Control and remedy: Implementation of weed control	To be implemented throughout the rehabilitation / closure phase: <ul style="list-style-type: none"> • Daily compliance monitoring by site management. • Compliance monitoring of site by an Environmental Control Officer. 	<ul style="list-style-type: none"> • 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 at 1:3 to the pit floor to prevent soil erosion or be stepped by creating benches of not more than 3 m high. 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

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 DMRE for adjudication.

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 8. 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 at 1:3 to the pit floor to prevent soil erosion or stepped by creating benches of not more than 3 m. The rehabilitation of the open cast as indicated on the rehabilitation plan attached as

Appendix 8 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 deposited 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 and the topsoil returned over the area.
- Coarse natural material used for the construction of ramps will be removed and deposited 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 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.
- 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 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	Sand, Aggregates, Silica & Decorative stones (Gemstones) open cast mine
Saleable mineral by-product	None

5.5.2 Risk ranking

Primary risk ranking (either Table B.12 or B.13)	C (Low risk)
Revised risk ranking (B.14)	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	Limited
--------------------------------	---------

5.5.5 Identify closure components


Component nr	Main description	Applicability of closure components	
1	Dismantling of processing plant and related structures (including overland conveyors and power lines)		No
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 (basic, salt-producing)		No
8 (C)	Rehabilitation of processing waste deposits and evaporation ponds (acidic, metal-rich)		No
9	Rehabilitation of subsided areas		No
10	General surface rehabilitation, including grassing of all denuded areas	Yes	
11	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



MP 30/5/1/3/2/12552 MP

Applicant:
Evaluator:

Deshney Mapoko

Ref No.:
Date:

Oct-20

No.	Description	Unit	A	B	C	D	E=A*B*C*D
			Quantity	Master Rate	Multiplication factor	Weighting factor 1	Amount (Rands)
1	Dismantling of processing plant and related structures (including overland conveyors and powerlines)	m3	0	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 structures	m2	0	336	1	1	0
3	Rehabilitation of access roads	m2	500	41	1	1	20500
4 (A)	Demolition and rehabilitation of electrified railway lines	m	0	395	1	1	0
4 (A)	Demolition and rehabilitation of non-electrified railway lines	m	0	216	1	1	0
5	Demolition of housing and/or administration facilities	m2	600	455	1	1	273000
6	Opencast rehabilitation including final voids and ramps	ha	4,47	238697	0,1	1	106697,559
7	Sealing of shafts adits and inclines	m3	0	122	1	1	0
8 (A)	Rehabilitation of overburden and spoils	ha	0,07	159131	1	1	11139,17
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	4,99	126059	0,1	1	62903,441
11	River diversions	ha	0	126059	1	1	0
12	Fencing	m	0	144	1	1	0
13	Water management	ha	0,03	47931	1	1	1437,93
14	2 to 3 years of maintenance and aftercare	ha	5	16776	1	1	83880
15 (A)	Specialist study	Sum	0	0	1	1	0
15 (B)	Specialist study	Sum	0	0	1	1	0
Sub Total 1							838340,75

1	Preliminary and General	100600,89	weighting factor 2	100600,89
2	Contingencies		83834,075	83834,075
Subtotal 2				1022775,72
VAT (15%)				212545,57
Grand Total				1235321

SIGN
DATE

Deshney Mapoko
2020/10/05

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 **R1 235 321**.

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 EMPr and reporting.

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

Source activity	Impacts required monitoring programme	Functional requirements for monitoring	Roles and responsibilities for the execution of monitoring programme	Monitoring and reporting frequency and time periods for implementing impact management actions
<ul style="list-style-type: none"> • Topsoil stripping and stockpiling • Blasting • Excavation • Crushing • Stockpiling and transporting • Sloping and landscaping during rehabilitation 	Dust monitoring <ul style="list-style-type: none"> • The dust generated by the mining activities should be continuously monitored and addressed by the implementation of dust suppression methods. 	Dust handling and monitoring <ul style="list-style-type: none"> • Dust suppression equipment, like a water car and water dispenser. The applicant already has this equipment available. 	Role <ul style="list-style-type: none"> • Site Manager to ensure compliance with EMPr guidelines. • Compliance to be monitored by the Environmental Control Officer. Responsibility <ul style="list-style-type: none"> • Control dust liberation into surrounding environment by using, e.g., water spraying and/or other dust-allaying agents. • Limit speed on access roads to 40km/h to prevent excess dust generation. • Spray roads with water/environmentally-friendly dust allaying agent that contains no PCBs (e.g. DAS products) if dust is generated above acceptable limits. 	Throughout construction, operational and decommissioning phase <ul style="list-style-type: none"> • Daily compliance monitoring by site management. • Quarterly compliance monitoring of site by an Environmental Control Officer.

Source activity	Impacts required monitoring programme	Functional requirements for monitoring	Roles and responsibilities for the execution of monitoring programme	Monitoring and reporting frequency and time periods for implementing impact management actions
			<ul style="list-style-type: none"> Assess effectiveness of dust suppression equipment. Re-vegetate all disturbed/exposed areas as soon as possible to prevent any dust source from being created. Ensure the crusher is equipped with water sprayers. 	
<ul style="list-style-type: none"> Topsoil stripping and stockpiling Blasting Excavation Crushing Sloping and landscaping during rehabilitation 	Noise monitoring <ul style="list-style-type: none"> The noise generated by the mining activities should be continuously monitored, and any excessive noise should be addressed. 	Noise handling and monitoring <ul style="list-style-type: none"> Site manager to ensure that the vehicles are equipped with silencers and kept roadworthy. Compliance with the appropriate legislation with respect to noise will be mandatory. 	Role <ul style="list-style-type: none"> Site Manager to ensure compliance with EMPr guidelines. Compliance to be monitored by the Environmental Control Officer. Responsibility <ul style="list-style-type: none"> Ensure that staff conduct themselves in an acceptable manner while on site. No loud music permitted at mining area. Ensure that all mining vehicles are equipped with silencers and kept roadworthy in terms of the Road Transport Act. Plan the type, duration and timing of the blasting procedures with due cognizance of other land users and structures in the vicinity. Notify surrounding land owners in writing prior blasting occasions. Use noise mufflers and/or soft explosives during blasting. 	Throughout construction, operational and decommissioning phase <ul style="list-style-type: none"> Daily compliance monitoring by site management. Quarterly compliance monitoring of site by an Environmental Control Officer.
<ul style="list-style-type: none"> Topsoil stripping and stockpiling Excavation Stockpiling and 	Management of weed or invader plants <ul style="list-style-type: none"> The presence of weed and/or invader 	Management of weed or invader plants <ul style="list-style-type: none"> Removal of weeds 	Role <ul style="list-style-type: none"> Site Manager to ensure compliance with EMPr guidelines. Compliance to be monitored by the Environmental Control Officer. 	Throughout operational and decommissioning phase <ul style="list-style-type: none"> Daily compliance monitoring by site

Source activity	Impacts required monitoring programme	Functional requirements for monitoring	Roles and responsibilities for the execution of monitoring programme	Monitoring and reporting frequency and time periods for implementing impact management actions
transporting	plants should be continuously monitored, and any unwanted plants should be removed.	should be manually or by the use of an approved herbicide	Responsibility <ul style="list-style-type: none"> Implement a weed and invader plant control management plan. Control declared invader or exotic species on the rehabilitated areas. Keep the temporary topsoil stockpiles free of weeds. 	management. <ul style="list-style-type: none"> Quarterly compliance monitoring of site by an Environmental Control Officer.
<ul style="list-style-type: none"> Stockpiling and transporting Sloping and Landscaping during rehabilitation 	Surface and storm water monitoring <ul style="list-style-type: none"> The effectiveness of the storm water infrastructure needs to be continuously monitored. 	Surface and storm water handling <ul style="list-style-type: none"> Trenches and contours to be made to direct storm- and runoff water around the stockpile areas. 	Role <ul style="list-style-type: none"> Site Manager to ensure compliance with EMPr guidelines. Compliance to be monitored by the Environmental Control Officer. Responsibility <ul style="list-style-type: none"> Divert storm water around topsoil heaps, stockpile areas and access roads to prevent erosion and material loss. Divert runoff water around the stockpile areas with trenches and contour structures to prevent erosion of the work areas. 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. 	
<ul style="list-style-type: none"> Blasting Excavation Sloping and 	Management of health and safety <ul style="list-style-type: none"> All health and safety 	Management of health and safety risks	Role <ul style="list-style-type: none"> Site Manager to ensure compliance with EMPr guidelines. Compliance to be monitored by the Environmental 	Throughout construction, operational and decommissioning phase

Source activity	Impacts required monitoring programme	Functional requirements for monitoring	Roles and responsibilities for the execution of monitoring programme	Monitoring and reporting frequency and time periods for implementing impact management actions
Landscaping during rehabilitation	aspects need to be monitored on a daily basis.	<ul style="list-style-type: none"> • Site manager to ensure that workers are equipped with required PPE while operating on site. • The necessary warning signs must be present at the site to inform the public and workers of mining activities. 	<p>Control Officer.</p> <p>Responsibility</p> <ul style="list-style-type: none"> • Submit an application for approval of access onto the R42 to the Department of Roads and Public Works prior to the commencement of work. • Inform the Traffic Department of each blast. If necessary, arrange for temporary road closure during a blast. • Plan the type, duration and timing of the blasting procedures with due cognizance of other land users and structures in the vicinity. • Inform the surrounding landowners and communities of any blasting event. • Use noise mufflers and/or soft explosives during blasting. • Limit fly rock. • Give audible warning of a pending blast at least 3 minutes before the blast. • Remove all fly rock (diameter 150mm and larger) which falls beyond working area, together with the rock spill. • Ensure that workers have access to the correct PPE as required by law. 	<ul style="list-style-type: none"> • Daily compliance monitoring by site management. • Quarterly compliance monitoring of site by an Environmental Control Officer

Source activity	Impacts required monitoring programme	Functional requirements for monitoring	Roles and responsibilities for the execution of monitoring programme	Monitoring and reporting frequency and time periods for implementing impact management actions
<ul style="list-style-type: none"> • Excavation • Crushing stockpiling and transporting • Sloping and landscaping during rehabilitation 	<p>Waste management</p> <ul style="list-style-type: none"> • Management of waste should be a daily monitoring activity. • Hydrocarbon spills need to be cleaned immediately and the site manager should check compliance daily. 	<p>Waste management</p> <ul style="list-style-type: none"> • Closed containers for the storage of general/hazardous waste until waste is removed to the appropriate landfill site. • Hydrocarbon spill kits to enable sufficient clean-up of contaminated areas. • Drip trays should be available to place underneath haul vehicles while the vehicles are parked at night. • Should a vehicle have a break down, it should be serviced immediately. 	<p>Role</p> <ul style="list-style-type: none"> • Site Manager to ensure compliance with EMPr guidelines. Compliance to be monitored by the Environmental Control Officer. <p>Responsibility</p> <ul style="list-style-type: none"> • Ensure that vehicle repairs only take place in the service bay area and all waste products are disposed of in a 200 l closed container/bin inside the emergency service area. • Collect any 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. • Clean spills immediately to the satisfaction of the Regional Manager by removing the spillage and polluted soil and by disposing of them at a recognised facility. • Ensure availability of suitable covered, conveniently placed receptacles at all times for waste disposal. • Place all used oils, grease or hydraulic fluids therein and remove receptacles from site regularly for disposal at a registered/licensed hazardous disposal facility. • 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 regularly and disposed of at the recognised landfill 	<p>Throughout construction, operational and decommissioning phase</p> <ul style="list-style-type: none"> • Daily compliance monitoring by site management. • Quarterly compliance monitoring of site by an • Environmental Control Officer.

Source activity	Impacts required monitoring programme	Functional requirements for monitoring	Roles and responsibilities for the execution of monitoring programme	Monitoring and reporting frequency and time periods for implementing impact management actions
			<p>site at Delmas. Prevent refuse from being dumped on or in the vicinity of the mine area.</p> <ul style="list-style-type: none"> • 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 programme	Monitoring and reporting frequency and time periods for implementing impact management actions
Stockpiling and transporting	Management of access roads <ul style="list-style-type: none"> Access road conditions must be continuously monitored. Vehicles carrying materials has to be equipped with adequate tarpaulin type covers to ensure that material being transported will not leave the vehicle during transportation. 	Management of access roads <ul style="list-style-type: none"> Dust suppression equipment such as a water car and dispenser. Trenches and contours to be made to direct storm- and runoff water around the access roads. 	Role <ul style="list-style-type: none"> Site Manager to ensure compliance with EMPr guidelines. Compliance to be monitored by the Environmental Control Officer. Responsibility <ul style="list-style-type: none"> Maintain newly constructed access roads (if applicable) to minimise dust, erosion or undue surface damage. Divert storm water around access roads to prevent erosion. Erosion of access road: Restrict vehicular movement to existing access routes to prevent crisscrossing of tracks through undisturbed areas. Cover vehicles carrying materials with adequate tarpaulin type covers to ensure that material being 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). 	Throughout construction, operational and decommissioning phase <ul style="list-style-type: none"> Daily compliance monitoring by site management. Quarterly compliance monitoring of site by an Environmental Control Officer.
Topsoil stripping and stockpiling	Topsoil handling <ul style="list-style-type: none"> When topsoil has been removed from any area the topsoil 	Topsoil handling <ul style="list-style-type: none"> Excavating equipment to remove the first 	Role <ul style="list-style-type: none"> Site Manager to ensure compliance with EMPr guidelines. Compliance to be monitored by the Environmental Control Officer. 	Throughout construction, operational and decommissioning phase <ul style="list-style-type: none"> Daily compliance

Source activity	Impacts required monitoring programme	Functional requirements for monitoring	Roles and responsibilities for the execution of monitoring programme	Monitoring and reporting frequency and time periods for implementing impact management actions
	heaps need to be continuously protected against loss of soil due to wind and water erosion.	<p>300mm of topsoil from the proposed work areas. The applicant already has this equipment available.</p> <ul style="list-style-type: none"> • Trenches and contours to be made to direct storm and runoff water around stockpiled topsoil area. 	<p>Responsibility</p> <ul style="list-style-type: none"> • Remove the first 300mm of topsoil in strips and store at the stockpile area. • Keep the temporary topsoil stockpiles free of weeds. • 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. • Topsoil heaps should not exceed 2 m in order to preserve micro-organisms within the topsoil, which can be lost due to compaction and lack of oxygen. • Divert storm- and runoff water around the stockpile area and access roads to prevent erosion. 	<p>monitoring by site management.</p> <ul style="list-style-type: none"> • Quarterly compliance monitoring of site by an • Environmental Control Officer.

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

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

Monitoring aspect	Time frames	Reporting
Dust handling	Throughout construction, operational and decommissioning phase	<ul style="list-style-type: none">• Daily compliance monitoring by site management• Quarterly compliance monitoring of site by an Environmental Control Officer
Noise handling		
Management of weed/invader plants	Throughout operational and decommissioning phase	
Surface and storm water handling		
Management of health and safety risks	Throughout construction, operational and decommissioning phase	
Waste management		
Management of access roads		
Topsoil handling		

It is proposed that the performance assessment/environmental audit report be annually submitted to DMRE.

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.

5.9.1.1 Fire and explosion control measures

Hazardous waste and dangerous substances can, by the verify definition, be flammable and reactive. As such, special precautionary measures must be taken when handling these substances. On the other hand, veld fires and fires resulting from other sources must be handled with extreme caution. In the event of a fire:

- Fire extinguishers must be placed around the mine at accessible locations and needs to be frequently inspected and maintained in working condition.

- An alarm must be activated to alert all employees and contractors.
- Identify the type of fire and the appropriate extinguishing material. E.g., water for a grass fire and mono ammonium phosphate based fire extinguisher for chemical and electrical fires
- In the event of a small fire, the fire extinguishers placed around the mine should be used to contain and extinguish the fire.
- In the event of a large fire, the fire department will be notified.
- All staff will receive training in response to a fire emergency on site, including evacuation procedures.
- A Fire Association should be set up with the mine and surrounding land owners to facilitate communication during fire events and assist in fighting fires, where necessary. If such an association exists, the mine will join it.
- If possible, surrounding drains, such as storm water drains must be covered and/or protected to prevent any contaminated water from entering the drains.
- In case of a chemical or petroleum fire, run-off from the area must be contained as far as possible using the most appropriate measures, e.g. spill absorbent cushions, sand or a physical barrier.
- Contaminated run-off must be diverted into an oil sump, or cleaned up.

Control measures include:

- Minimising the storage of flammable liquids on site (e.g. fuel, flammable wastes)
- Using a nitrogen atmosphere for organic waste liquid with a low flashpoint stored in tanks
- Not allowing smoking anywhere on site
- Providing an emergency tipping area for waste loads identified to be on fire or otherwise deemed an immediate risk
- Preparing and annually reviewing a fire risk assessment
- Ensuring all staff are appropriately trained for fire and explosion hazards

Other than explosion incidents related to mining, explosions can occur in the workshop areas when working with gas cylinders and chemicals. These could result in large numbers of employees being injured and requiring medical assistance.

The procedure to be followed includes:

- Devising safe evacuation routes in the event of an uncontrolled explosion and all

staff trained on relevant evacuation routes and assembly points.

- Providing first aid to injured parties, once safe to do so for first responders.
- Notifying relevant emergency response units and hospitals of incoming patients.
- Notifying the DMRE of the incident.

5.9.1.2 Chemical spills

Hydrocarbons such as diesel, petrol, and oil used as fuel for mine machinery will be kept on site, meaning that spillage may occur. Any chemicals contained on site, such as those associated with explosives may also be detrimental to the environment if spills occur. In the event of a spillage, procedures must be put into place to ensure that there are minimal impacts to the surrounding environment.

The following procedure applies to a chemical spill:

- The incident must be reported to the SHE officer immediately.
- The SHE officer will assess the situation from the information provided, and set up an investigation team. Included in this team could be the General Mine Manager, SHE Officer, the employee who reported the incident and an individual responsible for the incident.
- When investigating the incident, priority must be given to safety.
- Once the situation has been assessed, the Environmental Coordinator must report back to the Mine Manager.
- The General Mine Manager and the investigation team must make a decision on what measures can be taken to limit the damage caused by the incident, and if possible, any remediation measures that can be taken.
- In the event of a small spillage, the soil must be treated in situ, using Hazmat clean up kits and bioremediation.
- Every precaution must be taken to prevent the spill from entering the surface water environment.
- In the event of a large spillage, adequate emergency equipment for spill containment or collection, such as additional supplies of booms and absorbent materials, will be made available and if required, a specialised clean-up crew will be called in to decontaminate the area. The soil must be removed and treated at a special soil rehabilitation facility.

- Reasonable measures must be taken to stop the spread of spills and secure the area to limit access.

5.9.1.3 Flooding

There is always potential for flooding during the rainy season. This could result in a large volume of water accumulating in a water containment facility, which could cause major damage to equipment and endanger the lives of employees on site. Procedures must be put in place to ensure a quick response to flood events and minimal damage.

The procedure for flooding is as follows:

- During operations, DWS's flood warning system must be reviewed annually.
- The use of emergency pumps must occur if the water floods the pit.
- Mine management must be made aware of any such event so they can take appropriate action to ensure minimal production losses.
- The Pollution Control Dam should have a 0.8m freeboard and an overflow or outlet to ensure that no damage occurs to the facilities.
- All contaminated water must be contained on site, as far as possible and discharges to the environment must only occur if absolutely necessary in an extreme flood event.

6 Manner in which risk will be dealt with to avoid pollution or environmental degradation

6.1 Training (educational needs)

The Safety, Health and Environment (SHE) Officer must ensure that:

- New employees attend environmental awareness programmes through inductions
- Mine management conducts bi-annual workshops
- Documented training and competency
- Training records be maintained
- Training includes proper management of waste streams, labelling, containers and emergency procedures outlined
- Hazardous waste handlers and their supervisors/managers must complete training or on-the-job instruction relevant to their duties to include hazardous waste management procedures and contingency plan implementation

- Training of all personnel must be completed before duties are assigned and training in terms of handling of hazardous waste must be repeated annually and as and when required

6.2 Outsourced specialist skills

A training department will be established on site during operations. All inductions and workshops will be hosted by this department. This department, in conjunction with the SHE Officer, is responsible for ensuring job-specific training for personnel performing tasks, which can cause significant environmental (e.g. receipt of bulk hazardous chemicals/fuel, hazardous materials handling, responding to emergency situations etc.). The General Mine Manager (GM) with the assistance of the SHE Officer must identify relevant personnel and training courses. Short courses such as First aid training, Level 1 and 2; Fire Fighting Level; safety representative training; etc. should be mandatory and sourced from the training providers.

6.3 Review and updating of training manual and course layout

Before implementing the emergency and response plans and other environmental standard operating procedure, the SHE Coordinator and GM/Supervisors will designate and train a sufficient number of persons to assist in the safe and orderly emergency evacuation of employees.

All training manual and courses must be reviewed with all employees at the following times:

- Initially when the plan is developed,
- Whenever the employee's responsibilities or designated action under the plan change, and whenever the plan or mining processes has changed.
- At least annually employee meetings are to be held to train employees of the contents of the EP&RP and revise the plan as appropriate.
- Drills will be conducted and full participation encouraged.
- All training must be documented in writing and copies sent to GM.

Effectiveness of the environmental management training will be done by management through task observations and during internal and external audits. All training material for presentation to personnel and contractors will be reviewed annually to ensure consistency with organisational requirements and best practice guidelines. In addition to this, annual monitoring reports, audit results and all incident reports will be reviewed; any shortcomings and non-compliance will be highlighted and management measures incorporated or

improved upon within the training material.

6.4 Records

The mine will keep records such as waste, water, electricity usage etc. Record of incoming and outgoing waste must be kept and these must include:

- Types and categories of incoming and outgoing waste
- Quantities of each waste type and category
- Transporter details
- Safe disposal certificate must always be returned and filed at waste disposal site
- Training records for all employees working on the hazardous waste facility
- All records must be computerised or legible paper trails and cross-referenced, waste tracking easily accessed
- Records must be kept in a database on site for 3 years or more

Records from the implementation of this EAP will be kept and controlled in accordance with the SHE Management System Control of Records Procedure of the mine, which is required to be implemented so as to provide evidence of conformity and effective operation of the relevant requirements of the SHE management system.

6.5 Environmental awareness notice boards

The following basic environmental education material will be posted on a monthly basis on accessible notice boards on mine premises, one topic will be selected each month:

WHAT IS THE ENVIRONMENT?

- Soil
- Water
- Plants
- People
- Animals
- Air we breathe
- Buildings, cars and houses



WHY MUST WE LOOK AFTER THE ENVIRONMENT?

- It affects us all as well as future generations
- We have a right to a healthy environment
- A contract has been signed
- Disciplinary action (e.g. construction could stop or fines issued)

ANIMALS

- Do not injure or kill any animals on the site
- Ask your supervisor or Contract's Manager to remove animals found on site



TREES AND FLOWERS

- Do not damage or cut down any trees or plants without permission
- Do not pick flowers



SMOKING AND FIRE

- Put cigarette butts in a rubbish bin
- Do not smoke near gas, paints or petrol
- Do not light any fires without permission
- Know the positions of fire fighting equipment
- Report all fires
- Do not burn rubbish or vegetation without permission



PETROL, OIL AND DIESEL

- Work with petrol, oil & diesel in marked areas
- Report any petrol, oil & diesel leaks or spills to your supervisor
- Use a drip tray under vehicles & machinery
- Empty drip trays after rain & throw away where instructed



DUST

- Try to avoid producing dust -
- Use water to make ground & soil wet



NOISE

- Do not make loud noises around the site, especially near schools and homes
- Report or repair noisy vehicles



TRUCKS AND DRIVING

- Always keep to the speed limit
- Drivers - check & report leaks and vehicles that belch smoke
- Ensure loads are secure & do not spill



RUBBISH

- Do not litter - put all rubbish (especially cement bags) into the bins provided
- Report full bins to your supervisor
- The responsible person should empty bins regularly



EATING

- Only eat in demarcated eating areas
- Never eat near a river or stream
- Put packaging & leftover food into rubbish bins



TOILETS

- Use the toilets provided
- Report full or leaking toilets



HOW DO WE LOOK AFTER THE ENVIRONMENT?

- Report problems to your supervisor/ foreman
- Team work
- Follow the rules in the EMP



WORKING AREAS

- Workers & equipment must stay inside the site boundaries at all times



The operations manager must ensure that they understand the EMPr document, its requirements and commitments before any mining takes place. An Environmental Control Officer must ensure compliance of mining activities to the management programmes described in the EMPr. The following list represents the basic steps towards environmental awareness, which all participants in this project must consider whilst carrying out their tasks.

6.5.1 Site management

- Stay within site boundaries – do not enter adjacent properties
- Keep tools and material properly stored
- Smoke only in designated areas
- Use toilets provided – report full or leaking toilets

6.5.2 Water management and erosion

- Check that rainwater flows around work areas and is not contaminated
- Report any erosion
- Check that dirty water is kept from clean water
- Do not swim in or drink from streams

6.5.3 Waste management

- Take care of your own waste
- Keep waste separate into labelled containers – report full bins
- Place waste in containers and always close lid
- Don't burn waste
- Pick-up any litter laying around

6.5.4 Hazardous waste management (petrol, oil, diesel, grease)

- Never mix general waste with hazardous waste
- Use only sealed, non-leaking containers
- Keep all containers closed and store only in approved areas
- Always put drip trays under vehicles and machinery
- Empty drip trays after rain
- Stop leaks and spills, if safe
- Keep spilled liquids moving away
- Immediately report the spill to the site manager/supervision
- Locate spill kit/supplies and use to clean-up, if safe
- Place spill clean-up wastes in proper containers
- Label containers and move to approved storage area

6.5.5 Discoveries

- Stop work immediately
- Notify site manager/supervisor
- Includes archaeological finds, cultural artefacts, contaminated water, pipes, containers, tanks and drums, any buried structures

6.5.6 Air quality

- Wear protection when working in dusty areas
- Implement dust control measures:
 - Sweep paved roads
 - Water all roads and work areas
 - Minimise handling of material
 - Obey speed limit and cover trucks

6.5.7 Driving and noise

- Use only approved access roads
- Respect speed limits
- Only use turn-around areas – no crisscrossing through undisturbed areas
- Avoid unnecessary loud noises
- Report or repair noisy vehicles

6.5.8 Vegetation and animal life

- Do not remove any plants or trees without approval of the site manager
- Do not collect fire wood
- Do not catch, kill, harm, sell or play with any animal, reptile, bird or amphibian on site
- Report any animal trapped in the work area
- Do not set snares or raid nests for eggs or young

6.5.9 Fire management

- Do not light any fires on site, unless contained in a drum at demarcated area
- Put cigarette butts in a rubbish bin
- Do not smoke near gas, paints or petrol

- Know the position of firefighting equipment
- Report all fires
- Don't burn waste or vegetation

6.6 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 DMRE for review and approved as sufficient to cover the environmental liability at the time and for closure of the mine at that time.

7 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

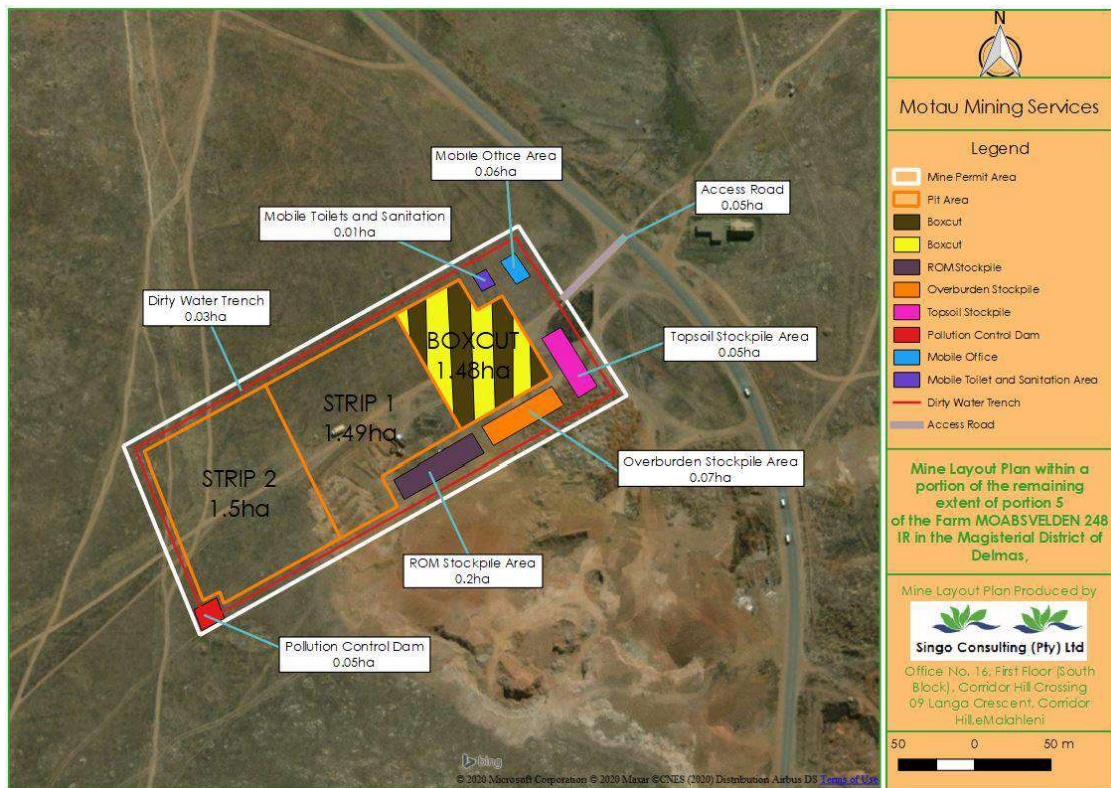
Name of company

Date

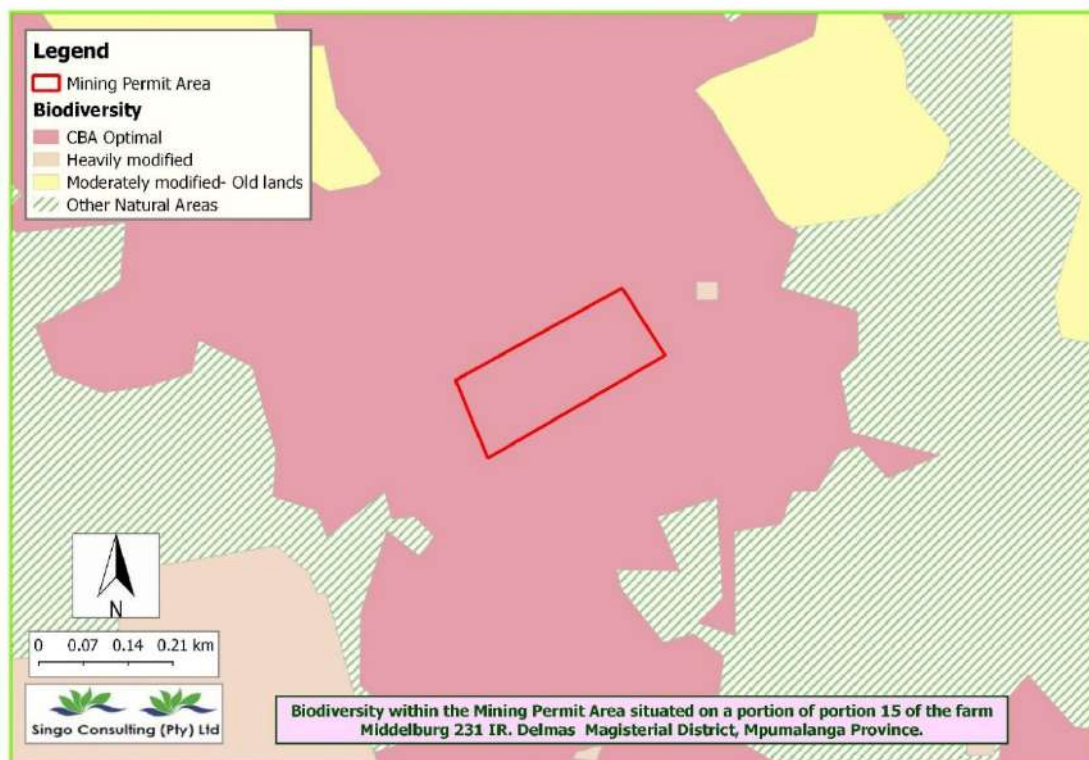
-END-

Appendix 1: Curriculum Vitae of the EAP

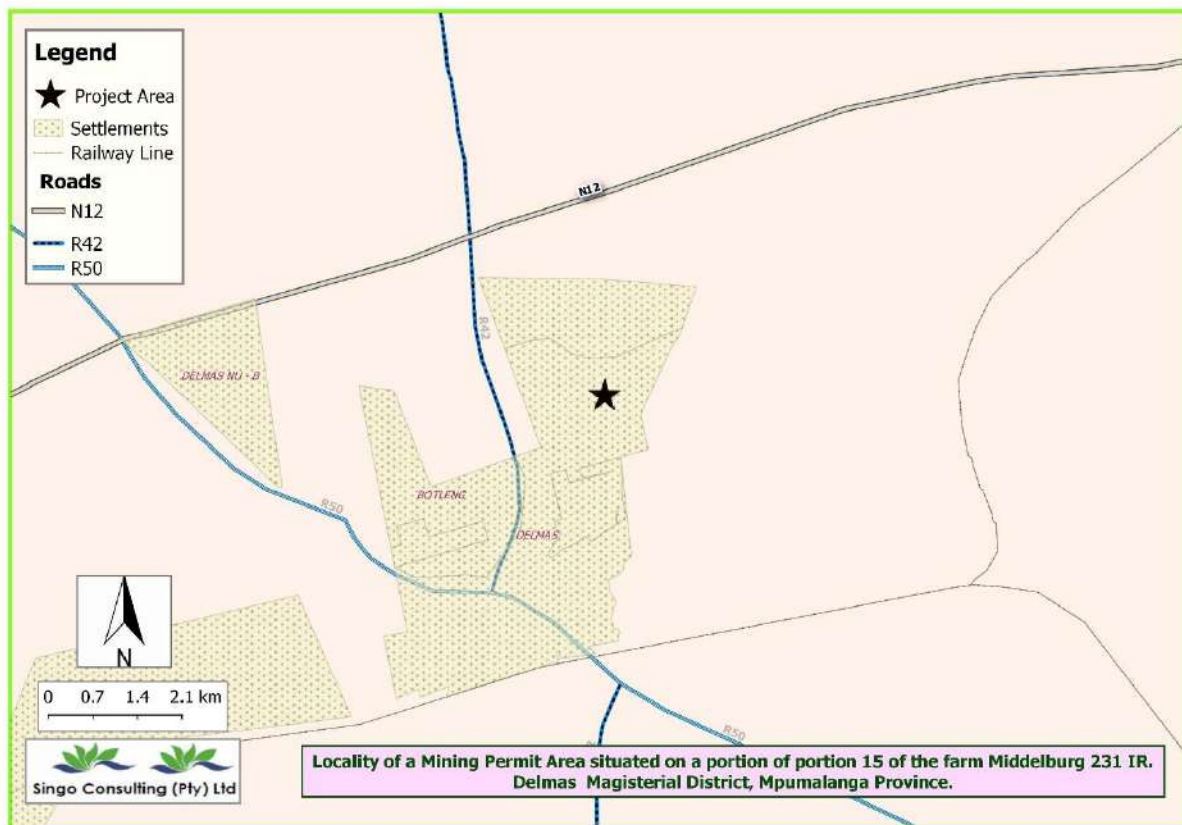
Appendix 2: Project maps



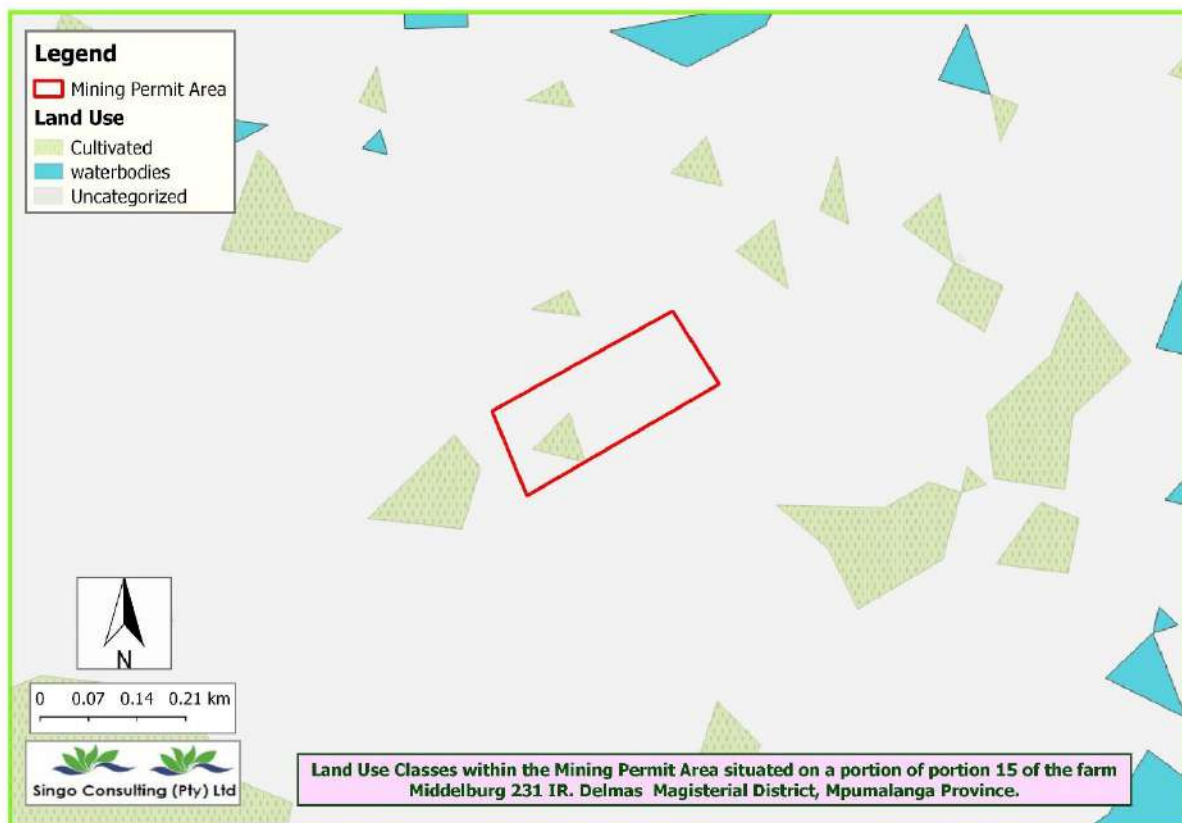
Mine layout plan



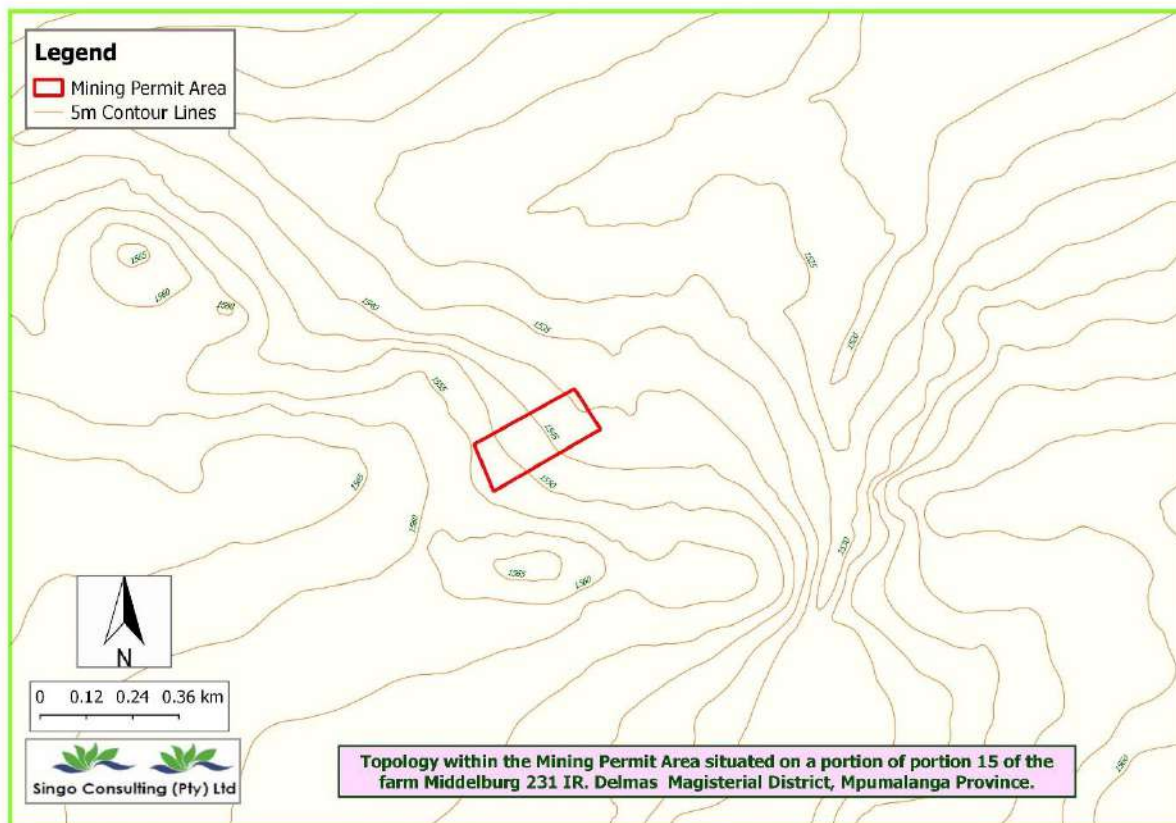
Biodiversity map



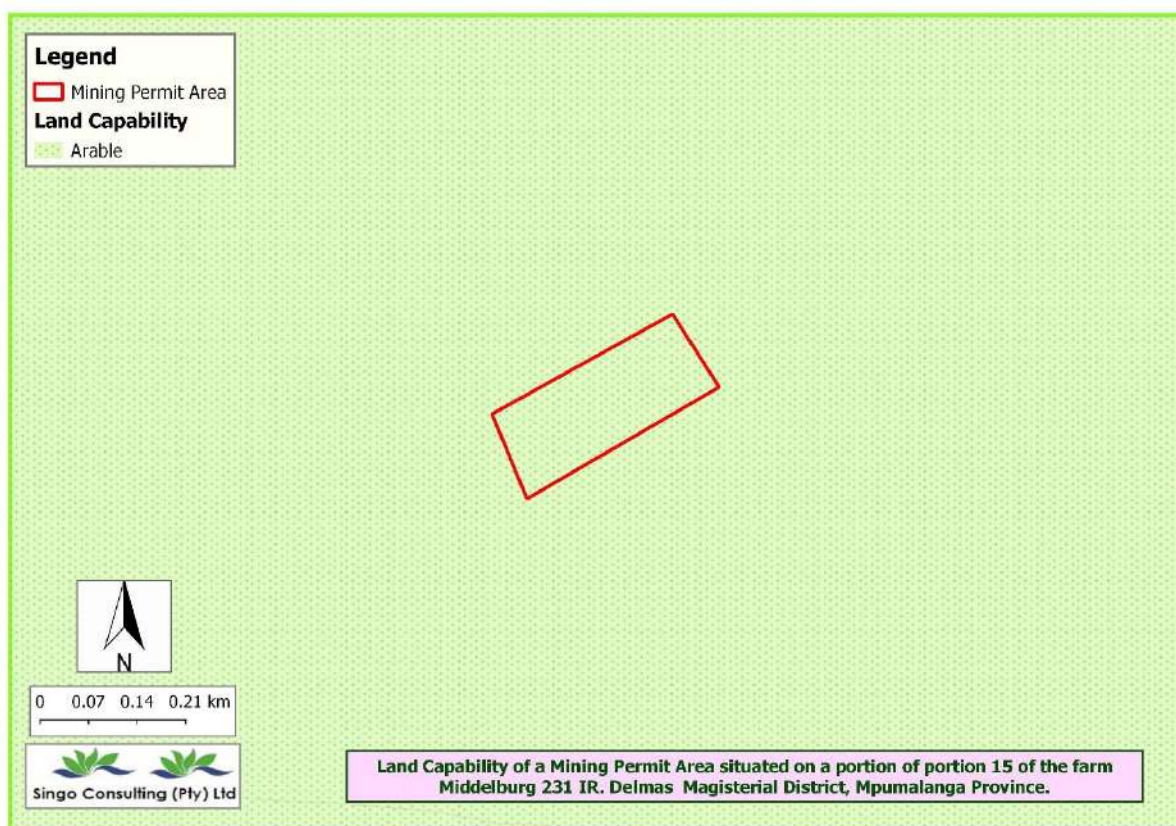
Locality map



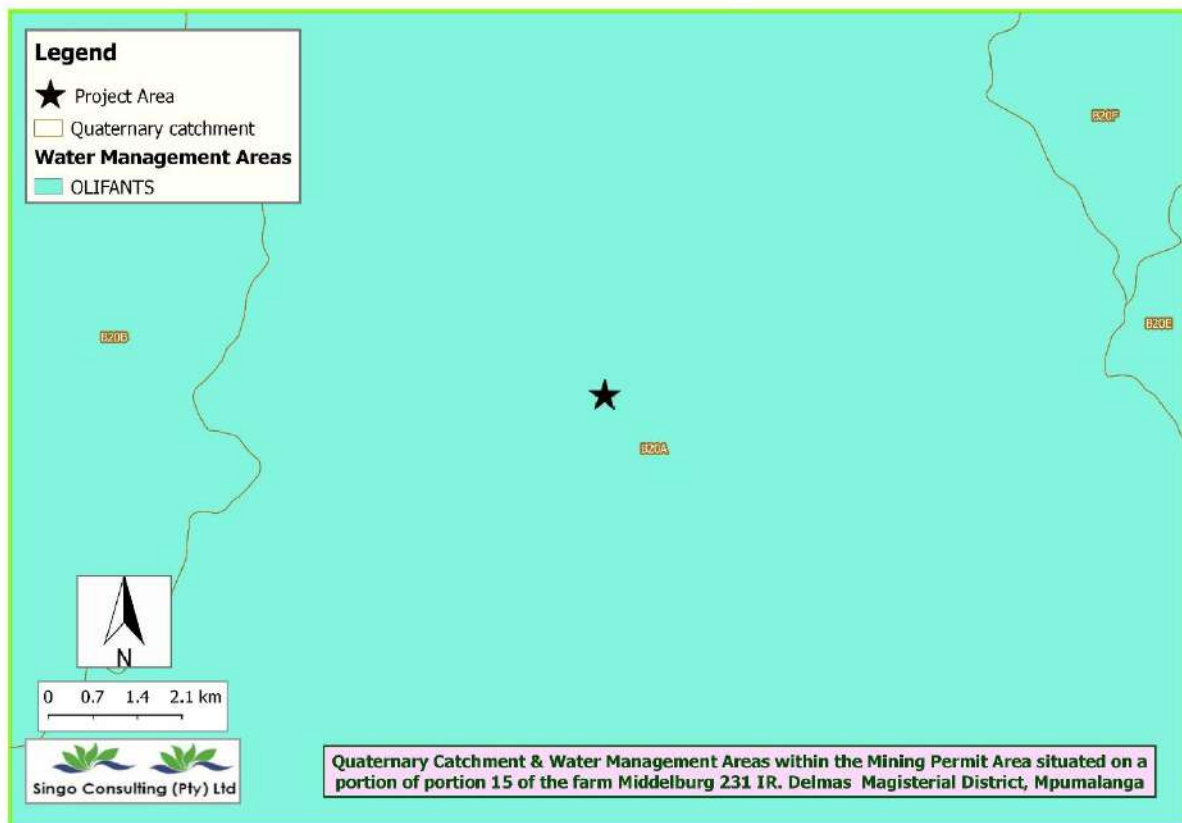
Land use map



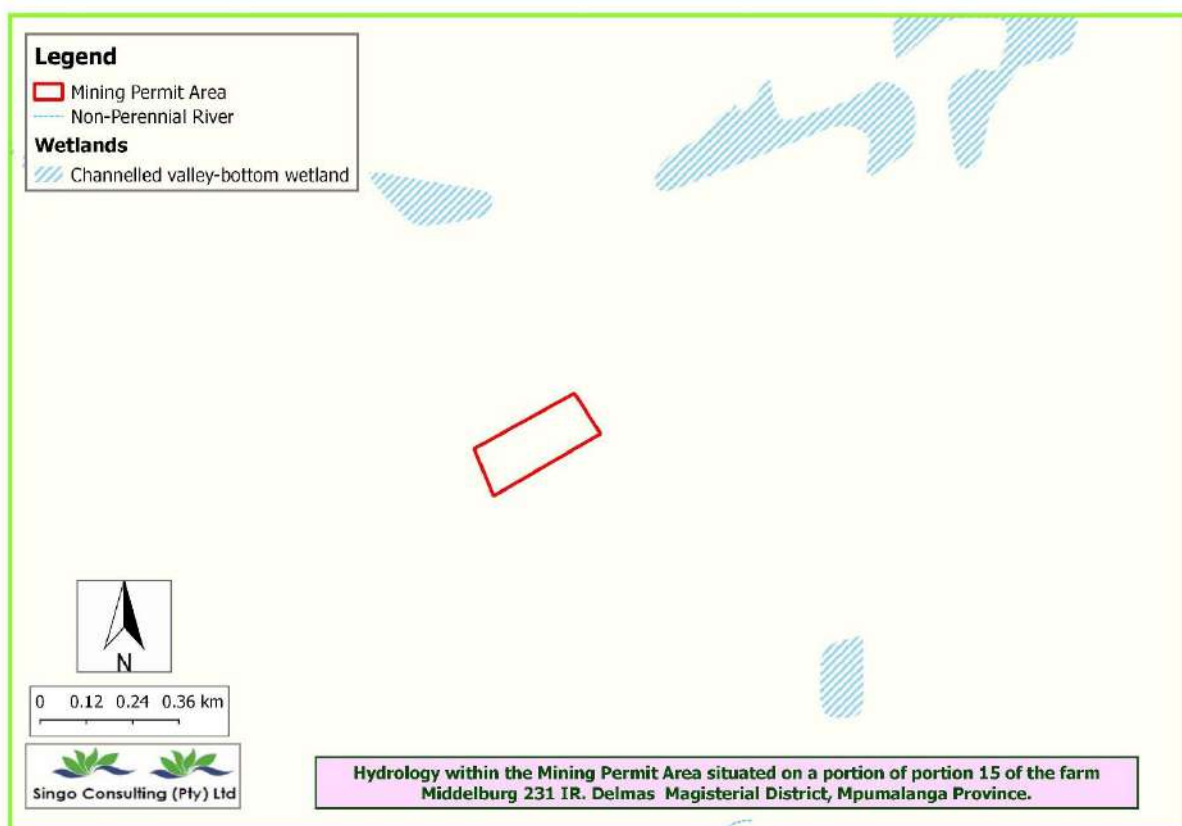
Topology map



Land capability map



Quaternary Catchment & Water Management Areas map



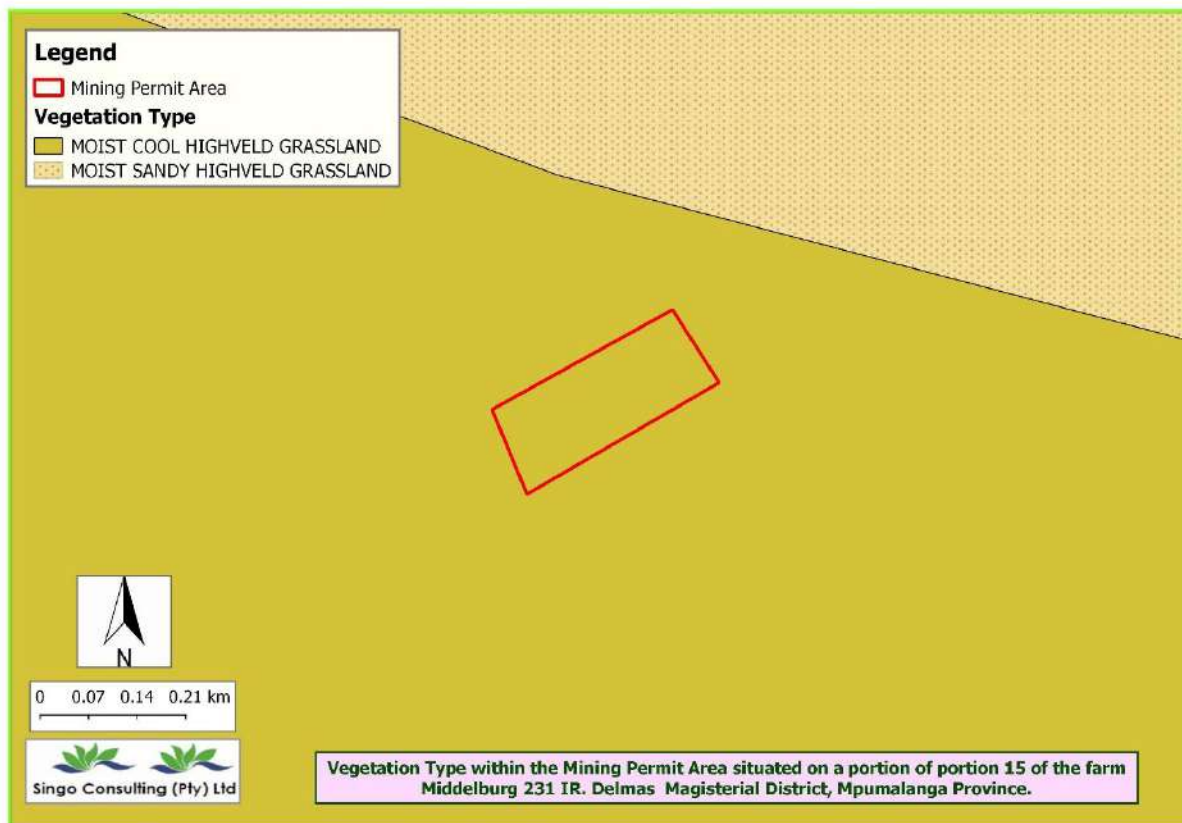
Hydrology map



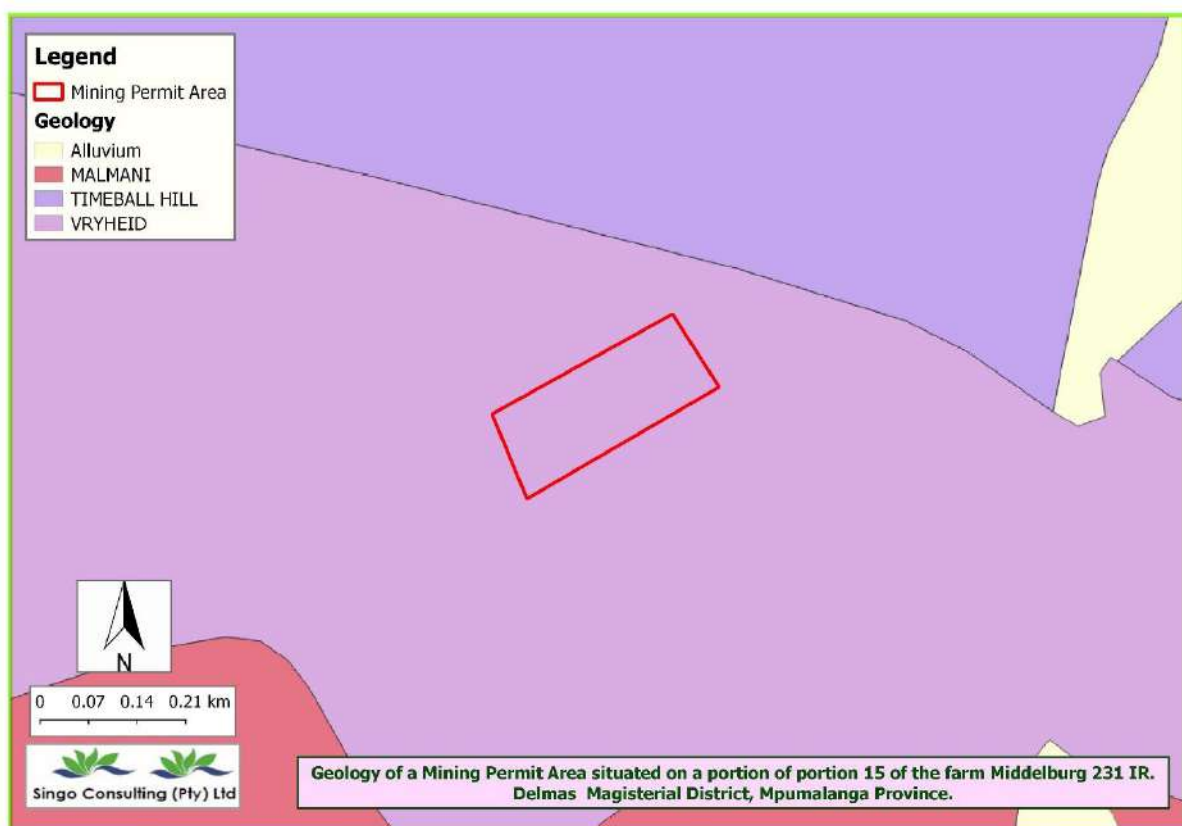
Google earth map



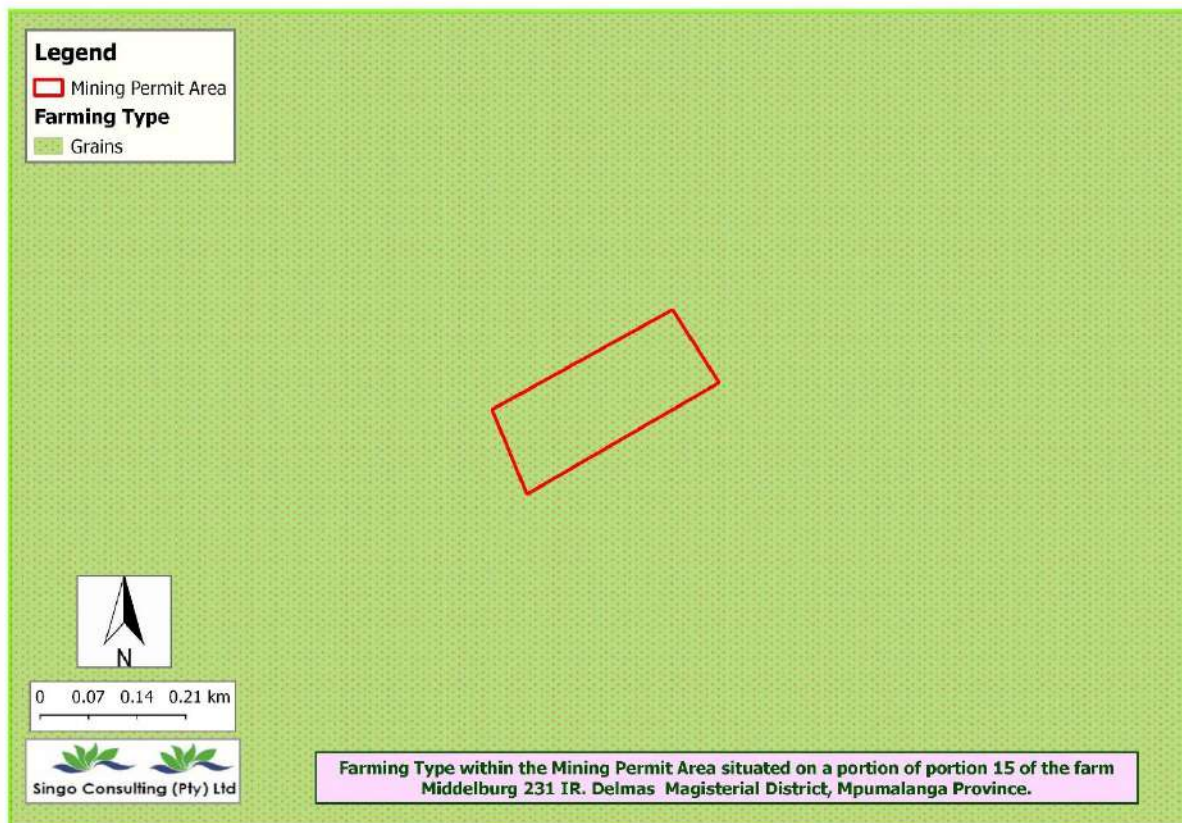
Soil classes map



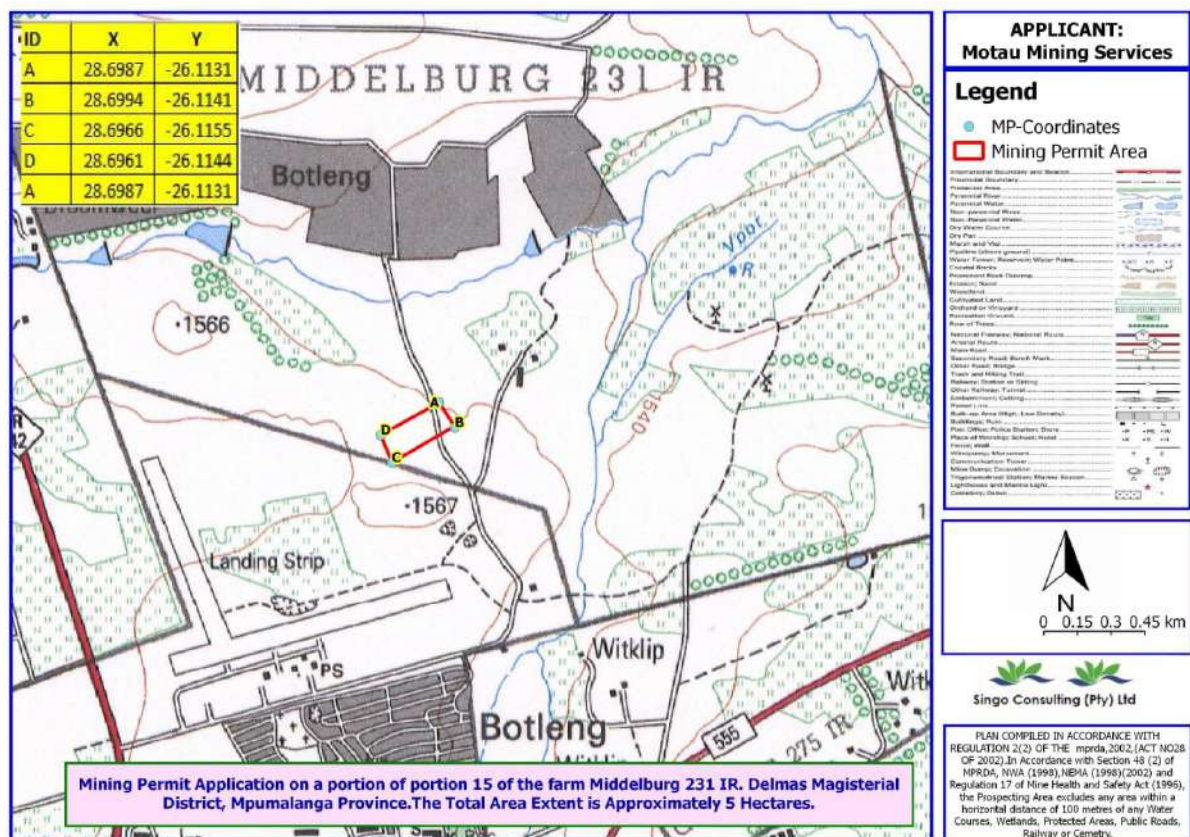
Vegetation type map



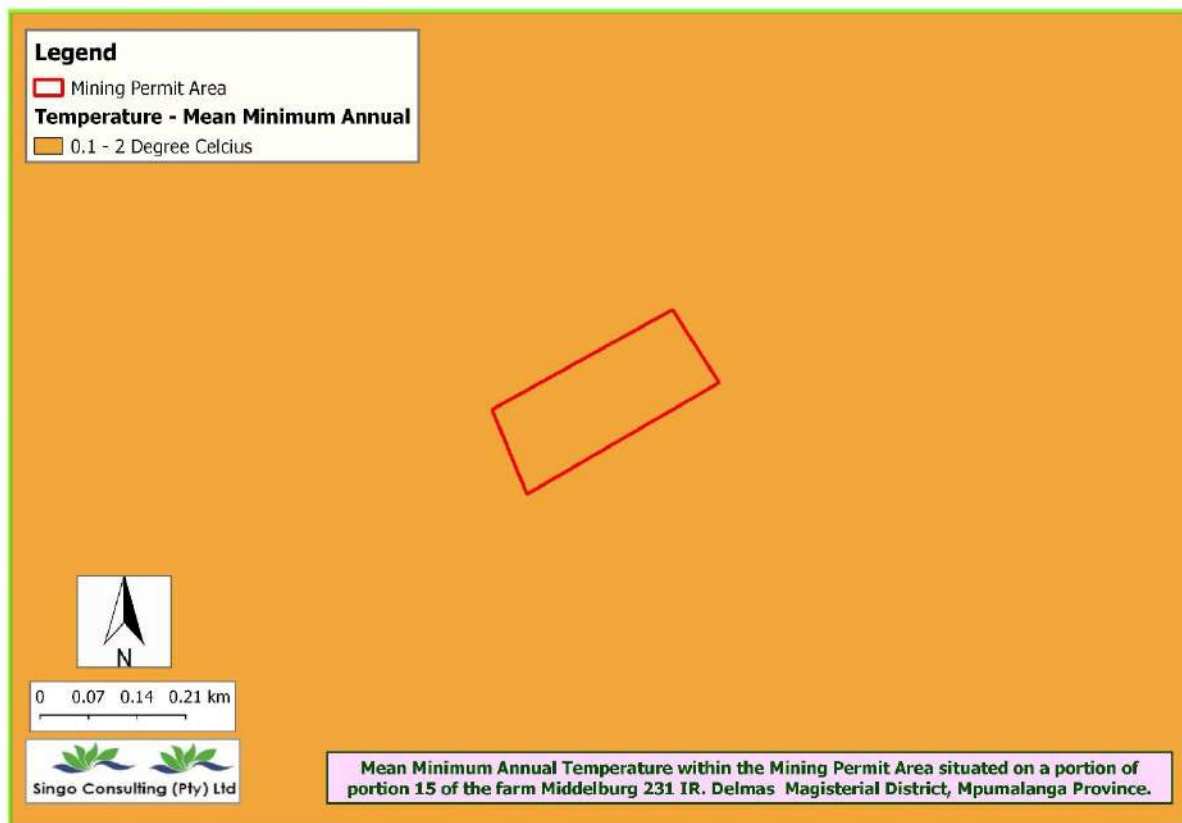
Geology map



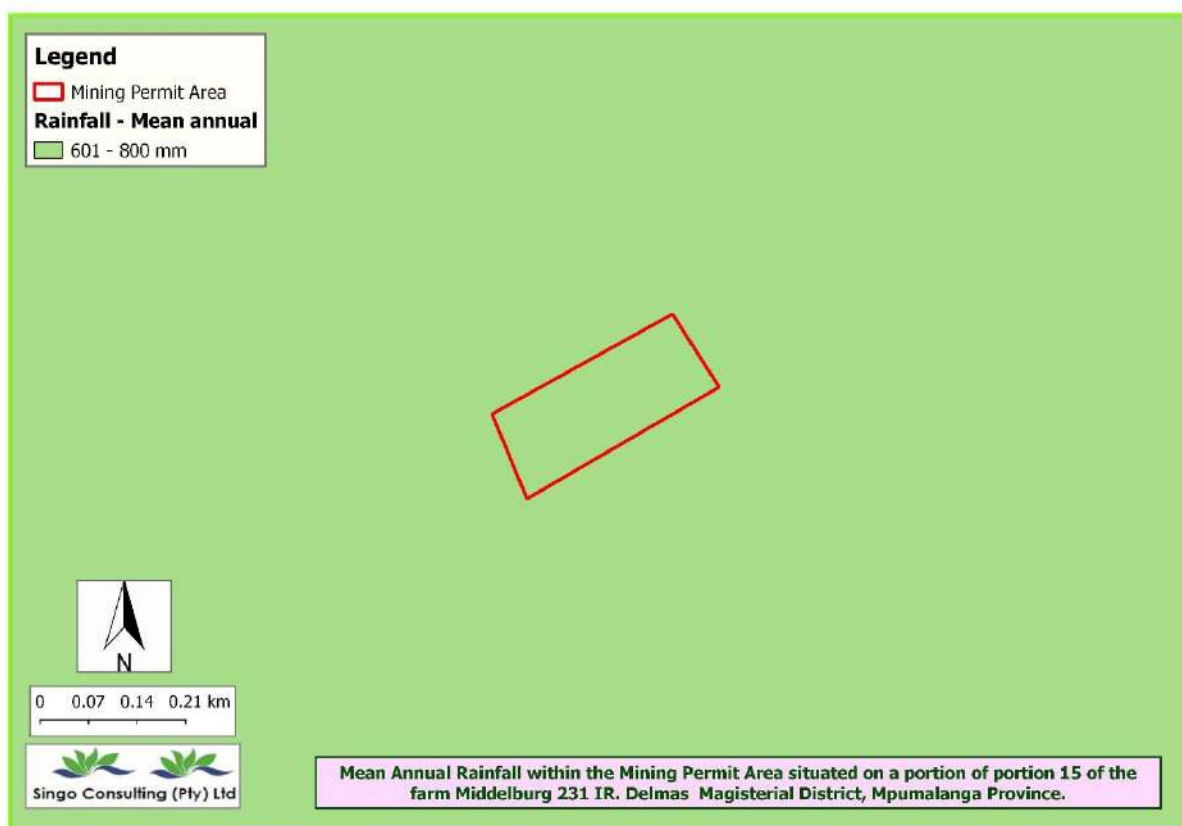
Farming type map



Reg 2.2. Plan



Mean Minimum annual temperature



Mean annual rainfall

Appendix 3: Public Participation Processes Followed

4A: Newspaper advertisement

NOTICE OF PUBLIC PARTICIPATION FOR MINING PERMIT AND ENVIRONMENTAL AUTHORIZATION APPLICATION	
ISIZULU	ENGLISH
<p>Isaziso senqubo yokulindela ilungelo Lesicelo ngokoMthetho Wezokumbiwa kanye Nezimbiwa (i-MPRDA) (Umntetho 28 ka 2002) ngokuthola isand, Aggregates, Silica ne Decorative stones (Gemstones) ku Nxenye u-15 we Famu i-Middelburg 231 IR kanye ne nxenye u-13 we Famu i-Leeuwpoort 205 IR, esendaweni iMagisterial District Delmas, eSifundazweni sase Mpumalanga.</p> <p>ISIMEMO SOKUPHAWULA NOKUVEZA IMIBONO MAYELANA NALE APPLICATIONI</p> <p>Ngaliso sikhathi kunikezwe isaziso ngokoMthetho Wezokumbiwa phansi kanye nePetroleum Development Act (MPRDA) (Umntetho 28 ka 2002) kanye nemigomo ye-EIA 2014, ekhishwe ngaphansi kwesaziso sikaHulumeni Nombolo 982 kuGazethi Nombolo 3822 yomhla ziyi-4 kuZibandilela 2014, ukuthi kuchithiyelwe ngomhlaka 7 Ephreli 2017 ukuthi i-Motau Mining Services ifake isicelo selungelo Lokuthola Ukumbiwa phansi kwale minerali eshiwo ngenhla nge-DMR Ref: MP 30/5/1/3/2 (12552) MP.</p> <p>Njengengxenywe yenqubo ye-EIA, ikakhulukazi Inqubo yokubamba iqhaza komphakathi kule phrojekthi ehlongozwayo, Amaqembu Athintekayo (I&APs) ayamanywa ukuba abhalise futhi alethe ngomusa noma yikuphi ukuphawula noma ukukhathazeka ukufinyelela kulikwasazana Deshney Mapoko kungakadluli umhlaka 07th September 2020, kusetshenziswa imininingwane yokuxhumana enikezwe ngezansi.</p> <p>Umphakathi ubuye futhi umenywe ukuthi ubukeze futhi uphawule ngombiko Oyisisekelo Wokuhlola Okuyisisekelo kanye ne-EMPr. Umbiko oyilwayo we-EMPr usotholokala ukuthi ubuyekazwe isikhathi sezinsuku ezingama-30 zekhalenda le-08th September 2020 – 08th October 2020. Ngenxa yobungazi abuhambisana nengciwane i-Covid-19 umhlangano ngeke ubanjwe, imibiko yamakhophi aqinile kungenzeka ingabikhotha kunoma iyiphi indawo yomphakathi noma izakhiwo ezivalelwe umphakathi, njengoba kuchaziwe kumthethonqubo (Isigaba 27 (2) soMthetho Wokulawulwa Kwezinhlekelele), Amakhophi e-elektroniki azokwenziwa atholokale ngesicelo kulikampani (Singo Consulting), kusetshenziswa imininingwane yokuxhumana ne ofisiyali engezansi, kungaba nge email; Dropbox link, Google drive; WeTransfer, njalo njalo. Ngeminye imininingwane, ukubhalisa njengeNhlangothi Ethandekayo noma Ethintekayo, sicela uxhumane no:</p>	<p>Notice of the Mining Permit Application Process as per the Minerals and Petroleum Resources Development Act (MPRDA) (Act 28 of 2002) by Motau Mining Services for the extraction of Sand, Aggregates, Silica & Decorative stones (Gemstones) on a Portion of portion 15 of the farm Middelburg 231 IR and portion of portion 13 of the farm Leeuwpoort 205 IR, situated in the Magisterial District Delmas, Mpumalanga Province.</p> <p>INVITATION TO COMMENT</p> <p>Notice is hereby given in terms of the Mineral and Petroleum Development Act (MPRDA) (Act 28 of 2002) and BIA Regulations 2014, published in Government Notice No. 982 in Gazette No. 3822 of 4 December 2014, amended on 7 April 2017 that Motau Mining Services has applied for a Mining Permit for the above-mentioned minerals with DMR Ref: MP 30/5/1/3/2 (12552) MP.</p> <p>As part of the BIA process, more especially the Public Participation Process for this proposed project, Interested and Affected Parties (I&APs) are invited to register and kindly submit any comments or concerns to reach Ms. Deshney Mapoko by no later than the 07th September 2020, using the contact details provided below. The public is also invited to review and comment on the Draft Basic Assessment Report (BAR) and EMPr. The draft BAR & EMPr report will be available for review for 30 calendar days from the 08th September 2020 to the 08th October 2020. Due to risks associated with Covid-19 mass meeting will not be held, hard copies reports may not be made available at any public place or premises closed to the public, as contemplated in the regulation (Section 27(2) of the Disaster Management Act). Electronic copies will be made available upon request from Singo Consulting (Pty) Ltd, using the detailed EAP's contact's below, via emails; Dropbox link; Google drive; WeTransfer, etc.</p> <p>For more information, to register as Interested or Affected Party, please contact: -</p>
<p> Singo Consulting (Pty) Ltd</p> <p>Office No. 16, First Floor (South Block), Corridor Hill Crossing, 9 Langa Crescent, Corridor Hill, eMalahleni (Witbank), 1040 Tel: 013 692 0041 Cell: 072 116 1225 Fax: 086-514-4103 Email: deshney@singoconsulting.co.za Email (Alt): admin@singoconsulting.co.za</p>	<p> MOTAU MINING</p> <p>2682 Marokwane Street, Botleng, Delmas, Mpumalanga, 2210 Tel No.: +27 82 543 0677 Fax No.: +27 86 5144 103 Cell No.: +27 82 543 0677 Email: motaumining@gmail.com</p>

Jag ja, maar selfde dag terug

Die Departement van Omgewing, Bosbou en Visserie kondig op 28 Julie nuwe regulasies rondom jag aan. Luidens die wysigings wat deur die departement aangebring is en in die Staatskoerant gepubliseer is, word jagers verbied om oor die grense te reis vir jaudoeleindes.

Volgens 'n plaaslike jagter is dit onmoontlik om teen 04:00 soggens te begin jag, jou bok te skiet, die vel te verwyder en dit te verwerk. "Die nuwe afkondiging is absoluut belaglik."

TLU SA dring aan op 'n verduideliking oor die gewysigde regulasies.

"Dis is uiters onverskillig en irrasioneel om sulke regulasies te publiseer. Dis is nog 'n ekonomiese slag vir wildboere wat reeds groot verliese gely het as gevolg van die regulasies van die eerste weke van die inperkings. Ons lode het reeds deposito's ontvang en voorbereidings getref vir jagters wat van ander provinsies by hulle sou gaan jag. Die risiko vir die verspreiding van Covid-19 op versafelêde gebiede, waar min mens met reukar in aanraking kom, is

Soos vir baie ander bedrywe en besighede in Suid-Afrika dui die verandering aan die regulasies binne vlak drie van die inperking nie op 'n baie rooskleurige prentjie nie.



Applications must be sent to
operation_recruit1@gmail.com



2682 Marokwane Street, Botleng,
Delmas, Mpumalanga, 2210
Tel No: +27 82 543 0677
Fax No: +27 86 5144 103
Cell No: +27 82 543 0677
Email: motauminingo@gmail.com

Fax: 086 535 6320
Email: murangir@vodamail.co.za / mukundigis@gmail.com

ERRATUM

For a newspaper that was published on the 07th of August 2020 on page 5. The Mining Permit Application is on **portion of portion 15 of the farm Middelburg 231 IR** without the inclusion of **portion of portion 13 of the farm Leeuwpoot 205 IR**.

NOTICE OF PUBLIC PARTICIPATION FOR MINING PERMIT AND ENVIRONMENTAL AUTHORIZATION APPLICATION.

ISIZULU

Isiziso senqubo yokuLindela ilungelo Lesicelo ngokomthetho Wezokumbiwa kanye Nezimbiwa (i-MPRDA) (Umthetho 28 ka 2002) ngokuthola iSand, Aggregates, Silica ne Decorative stones (Gemstones) ku Nxe nye u-15 we Famu I-Middelburg 231 IR, esendaweni iMagisterial District Delmas, eSifundazweni sase Mpumalanga.

ISIMEMO SOKUPHAWULA NOKUVEZA IMIBONO MAYELANA NALE APPLICATIONI

Ngaleso sikhathi kunikezwe isiziso ngokomthetho Wezokumbiwa phansi kanye nePetroleum Development Act (MPRDA) (Umthetho 28 ka 2002) kanye nemigomo ye-EA 2014, ekhishwe ngaphansi kwesiziso sikaHulumeni Nombolo 982 kuGazethi Nombolo 3822 yomhla ziye-4 kuZibandlela 2014, ukuthi kuchitshiyelwe ngomhla 7 Ephreli 2017 ukuthi i-Motau Mining Services ifake isicelo selungelo lokuthola ukumbiwa phansi kwale minerali eshiwo ngenhla nge- DMR Ref: MP 30/5/1/3/2 (12552) MP.

Njengengxenywe yenqubo ye-EA, ikakhulukazi inqubo yokubamba iqhaza komphakathi kule phrojekthi ehlongozwayo, Amaqembu Athintekayo Nathintekayo (I&APs) ayamanywa ukuba abhalise futhi aithe ngomusa noma yikuphi ukuphawula noma ukukhathazeka ukufinyelela kuliKosazana Deshney Mapoko kungakadluli umhla 07th September 2020, kusetshenziswa imininingwane yokuxhumana enikezwe ngezansi.

Umphakathi ubuye futhi umenywe ukuthi ubukeze futhi uphawule ngombiko Oyisisekelo Wokuhlola Okuyisisekelo kanye ne-BMPr. Umbiko oyilwayo we-BMPr uzotholakala ukuthi ubuyekizwe isikhathi sezinsuku ezingama-30 zekhalenda le-08th September 2020 – 08th October 2020. Ngenxa yobungazi obunambisana ngeCovid-19 umhlangano ngeke ubanjwe, imibiko yamakhophi aqinile kungenzeka ingabikhona kunoma iyiphi indawo yomphakathi noma izakhiwo ezivalelwe umphakathi, njengoba kuchaziwe kumthethonqubo (Isigaba 27 (2) soMthetho Wokulawulwa Kwezinhlekelele). Amakhophi e-elektroniki azokwenziwa atholakale ngesicelo kuliKampani (Singo Consulting (Pty) Ltd), kusetshenziswa imininingwane yokuxhumana ne ofishiyali engezansi, kungaba nge email; Dropbox link; Google drive; WeTransfer, njalo njalo. Ngeminye imininingwane, ukubhalisa njengethlangano Bhandekayo noma Ethintekayo, sicela uxhumane no:

ENGLISH

Notice of the Mining Permit Application Process as per the Minerals and Petroleum Resources Development Act (MPRDA) (Act 28 of 2002) by Motau Mining Services for the extraction of Sand, Aggregates, Silica & Decorative stones (Gemstones) on a portion of portion 15 of the farm Middelburg 231 IR situated in the Magisterial District of Delmas, Mpumalanga Province.

INVITATION TO COMMENT

Notice is hereby given in terms of the Mineral and Petroleum Development Act (MPRDA) (Act 28 of 2002) and EIA Regulations 2014, published in Government Notice No. 982 in Gazette No. 3822 of 4 December 2014, amended on 7 April 2017 that **Motau Mining Services** has applied for a Mining Permit for the above-mentioned minerals with DMR Ref: MP 30/5/1/3/2 (12552) MP.

As part of the EIA process, more especially the Public Participation Process for this proposed project, Interested and Affected Parties (I&APs) are invited to register and kindly submit any comments or concerns to reach **Ms. Deshney Mapoko** by no later than the **07th September 2020**, using the contact details provided below. The public is also invited to review and comment on the Draft Basic Assessment Report (BAR) and EMP. The draft BAR & EMP report will be available for review for 30 calendar days from the **08th September 2020** to the **08th October 2020**. Due to risks associated with Covid-19 mass meeting will not be held, hard copies reports may not be made available at any public place or premises closed to the public, as contemplated in the regulation (Section 27(2) of the Disaster Management Act). Electronic copies will be made available upon request from **Singo Consulting (Pty) Ltd**, using the detailed EAP's contact's below, via email; Dropbox link; Google drive; WeTransfer, etc.

For more information, to register as Interested or Affected Party, please contact: -



Singo Consulting (Pty) Ltd

Office No. 16, First Floor (South Block),
Corridor Hill Crossina, 9 Langa Crescent,
Corridor Hill, eMalaheni (Witbank), 1040
Tel: +27 13 692 0041
Cell: +27 72 116 1225
Fax: 086-514-4103
Email: deshnev@singoconsulting.co.za



2682 Marokwane Street, Botleng, Delmas,
Mpumalanga, 2210
Tel: +27 82 543 0677
Cell: +27 82 543 0677
Fax: 086 5144 103
Email: thabo@motaumining.co.za

Tutela Winkel - 'n droom word waar

'n Tweedehandse winkel is al jare 'n droom van die Tutela bestuurspan. (Tutela is die voormalige CMR). Met groot passie, entoesiasme en harde werk is die projek in die grendeltyd aangepak en op Woensdag, 4 Augustus word die droom realiteit.

Die doel van die winkel is eerstens om 'n diens aan die gemeenskap te lewer. Tutela Tweedehandse Winkel moet 'n adres wees, 'n plek waar aanbod en nood bymekaar uitkom. Dit is nie net vir diene in nood nie, dit is ook 'n snuffelplek vir interessante ontdekkings vir al die inwoners van die omgewing. 'n Plek waar jy kan aflaaai wat jy nie meer nodig het nie.

Die Lint word geknip deur Anne-Marie Mouton, eregas van die geleentheid omdat sy die winkelbestuurder is. Die Mouton-gesin, Sias, Anne-Marie, Jorik en Lariska is nuwe inwoners van Delmas. Hulle word met ope arms in hierdie omgee-gemeenskap ontvang. Anne-Marie is die vriendelike gesig wat die gemeenskap vanuit die winkel sal bedien en is ook die dorp se nuwe "macaroon" koningin.

"Mag hierdie plek vir jou 'n bediening wees, 'n vreugde en 'n seën," is Elna Schoeman se woorde aan Anne-Marie. "Fondse wat ons hier genereer moet die te kort op ons begroting aanvul en ons droom oor 'n huis van veilige bewaring, wat 'n groot behoefte in Delmas is, help realiseer" sê Elna, hoofbestuurslid van Tutela.

Hierdie is 'n gemeenskap saak en daarom is die leraars of verteenwoordigers van feitlik al die verskillende denominasies by die openingsgeleentheid teenwoordig. Seën en voorspoed word oor die winkel gespreek.

Die winkel ontvang 'n geskenk in die vorm van 'n MeZuzah vanaf die Rubin broers van Diamond Implements, 'n

MeZuzah word aan die deurpos van huise aangebring na aanleiding van Deut.6:9 wat 'n herinneringsteken is om die geboorte van God na te kom en dit vir jou kinders te leer, as jy "opstaan en gaan slaap, as jy in gaan en uitgaan". Chipo Chamonorwa, Elna se regterhand, wat baie gehelp het die afgelope 3 maande, sit die MeZuzah aan die winkel se deurkosyn vas.

Elna maak van die geleentheid gebruik om die gemeenskap te bedank vir hulle bydraes, betrokkenes vir hulp en gaste vir hulle teenwoordigheid.

Gaste sluit in die Hooftbestuurder van Tutela in die Hoëveld Sinode, Dr. Johan Botha, Tutela uitvoerende bestuur, Hester Vigne, Melanie de Klerk, ds. Isak du Toit, ds. Francois Gouws, Suzi Neube, Erika Louw en Past. Sonnyboy Mntakwene.

Delmas se Mantskaplike werkers van Tutela: Mari de Lange, Zanele Machitje en Thombi Tshabalala.

Delmas omgewing se leraars: Ds. Johannes Rossouw (N.G. Sunda), Past. Daniel Badenhorst (Eldemah), Dr. Martin Janse van Rensburg (Herv.), Past. Marius van Staden (Lewende Woord), Past. Etienne de Villiers, Past. Gert van der Mesht (PPK), Rev. Frans van Loggenberg (Met. & Ang), Bettie Bezuidenhout (Volle Evang.). Ds. Elize Crouch (N.G. Pres. Oord) asook Ds. Hennie Maré van die Delmas Ring.

Dominee Evert Bergh voorsitter van Tutela, Delmas en Springs, vir sy leiding in die proses en die besondere opening, asook vir sy vrou Ranelda wat van die verserings gemaak en geskenk het.

Die Trustees van die Christiaan Schoeman Trust: Kallie Schoeman, Judy Herring, Christelle Parrot en Madel Roos.

Die trust het betaal vir die opgradering van die gebou en finansier Anne-Marie se pos.

Die bouspan van Schoeman Boerdery, Karel Schoeman en sy bouspan.

Trudie Marée wat deurgaans help met rakke, gordyne, hangers, uitleg en haar vriende Alex Martinutsi en James Doughall wat help boor en vassit het.

So ook Pieter Smit, op wie se nommer ons nog gaan druk.

Dames wat gehelp het met klere was en stryk: Irma Joubert, Sannie van Vuuren, Heleen Coombi en Eugenie de Bruin, wat 'n week lank kom help ophang en merk het. Madel Fourie, (en Kallie Schoeman) het besondere sentiment met die projek aangesien die huis aan hulle grootouders aan moederskant, Oupa en Ouma Loedolff, behoort het. Madel het die tuin en gordyne

reggeruk en geskenk.

Josef Coombi en Frederik de Lange, wat verteenwoordig was deur Heleen Coombi en Amanda de Lange van Maksimum Sekuriteit het blitsvinnig 'n alarmlistelsel geïnstalleer en verskaf die maandelikse sekuriteitsdienste gratis. July Motors vir die skenken van die verserings.

Ds. Evert bedank Elna vir haar harde werk, motivering, leiding en dryf om die projek 'n werklikheid te maak.

Die winkel was toe oop vir besigtiging en daarna was verserings geniet, op 'n afstand...

Die publiek is hartlik welkom om 'n draai te kom maak by die Tutela Tweedehandse winkel en af te laai wat tuis in onbruik verval het. Ons gee die 'n tweede asem!



Anne-Marie Mouton, ds. Evert Bergh en Elna Schoeman.



Anne-Marie Mouton knip die lint.



Chipo Chamonorwa sit die MeZuzah aan die winkel se deurkosyn vas.



Ds. Evert Bergh open die geleentheid uit die Skrif.

ERRATUM

For a newspaper that was published on the 07th of August 2020 on page 5. The Mining Permit Application is on portion of portion 15 of the farm Middelburg 231 IR without the inclusion of portion of portion 13 of the farm Leeuport 205 IR.

NOTICE OF PUBLIC PARTICIPATION FOR MINING PERMIT AND ENVIRONMENTAL AUTHORIZATION APPLICATION.

ISIZULU
Isiziso sengabo yokuLindaLela Isigaba Lesisele ngokuthetha Wenzakumbi kanye Nezimbini (i-MPRDA) (Umlwebho 28 ka 2002) ngokuthetha **Sand, Aggregates, Silica na Decorative stones (Gemstones)** kuNyentso-15 we Famu I-Middelburg 231 IR, esendaweni iMagisterial District Delmas, eSifundazweni sase Mpumalanga.

ISIMEMO SOKUPHAWULA NOKUVEZA IMIBONO MAYELANA NALU APPLICATION

Ngaleso sikhathi kunikezwe isiziso ngokuthetha Wenzakumbi phansi kanye nePetroleum Development Act (MPRDA) (Umlwebho 28 ka 2002) kanye nenqaniso ye-EIA 2014, eSifundazweni ngaphantsi kwesiziso sikaLundani Nombolo 282 kuGazethi Nombolo 3822 yomhla zyi-4 kaZikhatheli 2014, ukuthi kuthobizwe ngomhla 7 Ephelile 2017 ukuthi i-Motau Mining Services ifake isicelo selungelo LokuThola Ukumbi phansi kwale minerali eshivho ngomhla nge-DMR Ref: MP30/5/1/3/2 (12552) MP.

Njengengaphakathi ye-EIA, ikaluhlukekile inqubo yokubamba ikhaza kumphakathi kule phrojekthi ehlongozwayo. Amaqembu Athintekayo Nathintekayo (I-IAPs) ayaminywa ukuba abizise futhi azele ngomusa noma yikuphi ukuphawula noma ukuthathazeka kuthintekayo kuleziziso **Desney Mapoko** kungakaculi umhla ka-07th September 2020, kusethenzwa imininingwane yokuzhumana enikezwe ngaphantsi.

Umpheleli ubuyi futhi umanywa ukuthi ubikeze futhi ngomhla ngomhla Oylitshelwa Wokuthola Okuyisisele kanye ne-EIAP. Umhla yilinywe we-EIAP umhla ka-30 zikhatheli le-08th September 2020 - 08th October 2020. Ngemva yobungqosobuhamisana ngedwaine i-Covid-19 umhlangano ngokwe ubanywe, imibiko yamaqembu aqinile kungenzeka engabikhoza kunoma iyiphi indawo yemphakathi noma izakhiwo ezivalelwe umphakathi, njengoba kuzakhe kumthetho ngaphandle (ibigaba 27 (2) eMthetho Wokulawula Kwesizithiwele). Amakheph e-elektroniki azokwenzeka atholakale ngesicelo kuMphakathi (Singo Consulting (Pty) Ltd), kusethenzwe imininingwane yokuzhumana ne ofishiyali engazandi, kungaba nge email: Dropbox link, Google drive, WeTransfer, njalo njalo. Ngeminye imininingwane, ukuthalwa njengeMhlangano Ekhondakayo noma

Ethintekayo, sicela uhamane na:

Singo Consulting (Pty) Ltd
Office No. 16, First Floor (South Block),
Corridor Hill Crossing, 9 Langa Crescent,
Corridor Hill, eMalaheni (Witsbank), 1040
Tel: 013 692 0041 Cell: 072 116 1225
Fax: 086 514 4103
Email: desney@singoconsulting.co.za
Email: admin@singoconsulting.co.za

ENGLISH
Notice of the Mining Permit Application Process as per the Minerals and Petroleum Resources Development Act (MPRDA) (Act 28 of 2002) and EIA Regulations 2014, published in Government Notice No. 982 in Gazette No. 3822 of 4 December 2014, amended on 7 April 2017 that **Motau Mining Services** has applied for a Mining Permit for the above-mentioned minerals with DMR Ref: MP 30/5/1/3/2 (12552) MP.

INVITATION TO COMMENT

Notice is hereby given in terms of the Mineral and Petroleum Development Act (MPRDA) (Act 28 of 2002) and EIA Regulations 2014, published in Government Notice No. 982 in Gazette No. 3822 of 4 December 2014, amended on 7 April 2017 that **Motau Mining Services** has applied for a Mining Permit for the above-mentioned minerals with DMR Ref: MP 30/5/1/3/2 (12552) MP.

As part of the EIA process, more especially the Public Participation Process for this proposed project, Interested and Affected Parties (I&APs) are invited to register and kindly submit any comments or concerns to reach **Ms. Desney Mapoko** by no later than the **07th September 2020**, using the contact details provided below. The public is also invited to review and comment on the Draft Basic Assessment Report (BAR) and EIR. The draft BAR & EIR report will be available for review for 30 calendar days from the **08th September 2020 to the 08th October 2020**. Due to risks associated with Covid-19 mass meeting will not be held, hard copies reports may not be made available at any public place or premises closed to the public, as contemplated in the regulation (Section 27(2) of the Disaster Management Act). Electronic copies will be made available upon request from **Singo Consulting (Pty) Ltd**, using the detailed EAP's contact's below, via email: Dropbox link, Google drive, WeTransfer, etc.

For more information, to register as Interested or Affected Party, please contact:-

MOTAU MINING
2682 Marokwane Street, Boteng,
Delmas, Mpumalanga, 2210
Tel No: +27 82 543 0677
Fax No: +27 85 5144 103
Cell No: +27 82 543 0677
Email: thabog@motaumining.co.za

4B: Background information Document

BACKGROUND INFORMATION DOCUMENT		
Application: Mining Permit on Portion of portion 15 of the farm Middelburg 231 IR	Prepared by: <div style="text-align: center;">  Singo Consulting (Pty) Ltd </div>	Prepared for: <div style="text-align: center;">  MOTAU MINING </div>
Magisterial District: Delmas		

INTRODUCTION AND THE PURPOSE OF THIS DOCUMENT

Singo Consulting (Pty) Ltd has been appointed as an independent Environmental Consultant by **Motau Mining Services** to conduct Environmental Impact Assessment (EIA), Compile an Environmental Management Programme report (EMPr) and undertake Public Participation Process (PPP). This is done for processes of acquiring Environmental Authorization for the proposed Mining Permit Application within **Portion of portion 15 of the farm Middelburg 231 IR** in the Magisterial District of Delmas in Mpumalanga Province. (DMR Ref: MP 30/5/1/3/2/ (12552) MP).

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 (I&APs) 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 I&APs 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 form, kindly complete it and send it back to **Ms Deshney Mapoko** through given means of communication also attached there.

PROJECT DESCRIPTION

Mining Permit Application has been submitted for the extraction of **Sand, Aggregates, Silica & Decorative stones (Gemstones)** resources on the property mentioned above. This Mining Area, as seen in figure 1, is situated approximately 1.82 km south of Botleng.

Mining activities will be undertaken over a period of two (2) years. This project will entail an open cast method of excavation. The mine design will be developed according to the dimension of the applied mineral 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 farm 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. Waste rock will be piled up at the surface, near the edge of the open pit (waste dump). The waste dump will be tiered and stepped, to minimize degradation. All the activities will be guided by the project's EMPr 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 the applied minerals; 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).

These all will accurately be followed to ensure that identified impacts are assessed and mitigated according to their significance so that the protection of the receiving environment and populations is met.

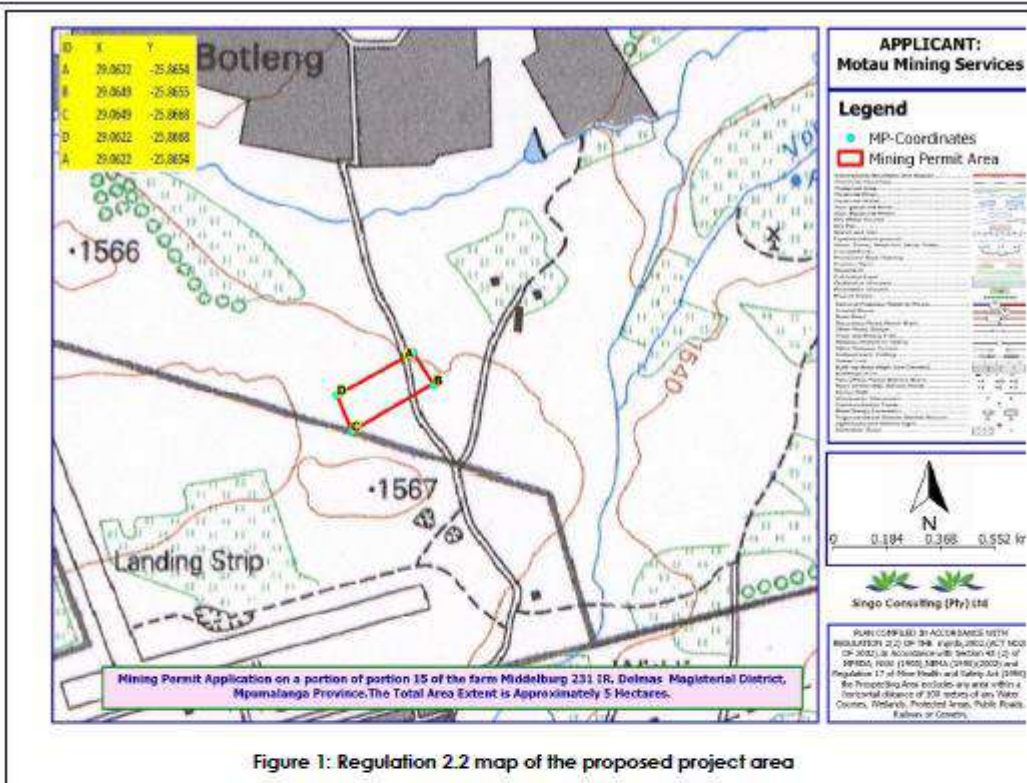


Figure 1: Regulation 2.2 map of the proposed project area

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 I&APs, an opportunity to understand what the project is about, and affords them an opportunity to make valuable contributions towards the EIA process.

I&AP 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 during the Scoping phase is to afford the I&APs with an opportunity to comment and provide valuable inputs during the planning phase of the project.

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

Kindly keep the following dates:

- ❖ Stakeholder engagement and consultation: **07th August 2020 to 07th September 2020.**
- ❖ Review of Draft BAR & EMP: **08th September 2020 to 08th October 2020.**
- ❖ Submission of the Final BAR & EMP: **12th October 2020.**

Due to risks associated with Covid-19 mass meeting will not be held, hard copies reports may not be made available at any public place or premises closed to the public, as contemplated in the regulation (Section 27(2) of the Disaster Management Act). Electronic copies will be made available upon request from Singo Consulting (Pty) Ltd, using the detailed EAP'S contact's below, via emails; Dropbox link; Google drive; WeTransfer, etc.



Mining Permit Application on portion of portion 15 of the farm Middelburg 231 IR

Email: deshnev@singoconsulting.co.za

3

4C: Landowner list

Farm List

Date Requested 2020/08/28 11:17

Deeds Office MPUMALANGA


Registration Division IR

Farm Name MIDDELBURG

Farm Number 231

Remaining Extent NOT SELECTED

Printed: 2020/08/28 11:17




A LexisNexis® Product

PORTION LIST				
Portion	Owner	Title Deed	Registration Date	Purchase Price (R)
0	AZORIWEB PTY LTD	T12824/2019	2019/12/03	R2800000.00
1	ANTIOCH INITIATIVE	T14263/2008	2008/09/10	R1316718.00
4	PLAASLIKE OORGANGSRAAD VAN DELMAS	T31275/1993	1993/04/27	R0.00
5	MUN BOTLENG	T40620/1994	1994/06/09	R109226.00
8	MBENEKAZI TAWEN THAMSANQA	T95790/2005	2005/07/28	R80000.00
9	MBENEKAZI TAWEN THAMSANQA	T337065/2007	2007/12/13	R50000.00
11	BERG ANDRE VAN DEN	T13966/1992	1992/03/03	R100000.00
12	*** NO LONGER EXISTS - SEE ENDORSEMENTS ***		-	
13	LEEUVENKAMP EDUARD JOHANNES	T15765/1990	1990/03/09	R129000.00
14	MUN DELMAS	T37067/1983	1983/09/07	R0.00
16	*** NO LONGER EXISTS - SEE ENDORSEMENTS ***		-	
17	*** NO LONGER EXISTS - SEE ENDORSEMENTS ***		-	

DISCLAIMER

This report contains information gathered from our suppliers and we do not make any representations about the accuracy of the data displayed nor do we accept responsibility for inaccurate data. WinDeed will not be liable for any damage caused by reliance on this report. This report is subject to the terms and conditions of the [WinDeed End User Licence Agreement \(EULA\)](#).

4D: Landowner notification letter



Singo Consulting (Pty) Ltd

- 09 Langa Crescent, Corridor Hill Crossing, First Floor (South Block) Office No. 16, eMalaheni
- kenneth@singoconsulting.co.za
- www.singoconsulting.co.za
- +27 13 692 0041
- +27 86 514 4103

Dear Landowner

PROPOSED MINING PERMIT APPLICATION FOR SAND, AGGREGATES, SILICA AND DECORATIVE STONES (GEMSTONES) MINERALS ON PORTION OF PORTION 15 OF THE FARM MIDDELBURG 231 IR SITUATED UNDER THE DELMAS MAGISTERIAL DISTRICT, MPUMALANGA PROVINCE. DMRE ref: MP 30/5/1/3/2/ (12552) MP.

Singo Consulting (Pty) Ltd on behalf of **Motau Mining Services** wishes to inform you about the Mining Permit Application of the above-mentioned minerals on your property, portion of portion 15 of the farm Middelburg 231 IR. **Motau Mining Services** has applied for a Mining Permit together with the Environmental Authorization (EA) in terms of Section 16 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA), on portion of portion 15 of the farm Middelburg 231 IR, situated in the Victor Khanye Local Municipality, under the Magisterial District of Delmas, Mpumalanga Province.

Singo Consulting (Pty) Ltd has been appointed as an independent Environmental Assessment Practitioner (EAP). We are conducting a Basic Assessment process, if you have any comment(s) concerning the proposed project or terms and conditions you want to lay down, kindly fill the comment form below and register your comments and forward back to the EAP's contact details provided by no later than the **07th of September 2020**.

Kindly note that as the landowner of portion 15 of the farm Middelburg 231 IR, your comments are critical in decision making at the Department of Mineral Resources and Energy (DMRE) concerning the proposed project. Should you have any queries regarding the proposed project, please do not hesitate to contact us on the EAP's contact details provided below.

Kind Regards.

EAP's Contact Details:




Singo Consulting (Pty) Ltd

Office No. 16, Corridor Hill Crossing
09 Langa Crescent, Corridor Hill
eMalaheni
1035.
Ms Deshney Mapoko
Tel No.: +27 13 6920 041
Fax No.: +27 86 5144 103
Cell No.: +27 72 116 1225
Email: deshney@singoconsulting.co.za

Applicant's Contact Details:



2682 Morokwane Street,
Botleng,
Delmas,
Mpumalanga 2210
Mr T.P Motau
Tel No.: 082 543 0677
Cell No.: 082 543 0677
Fax: 086 514 4103
Email: thabo@motaumining.co.za



I, _____ herewith acknowledge receipt of:

One (1) copy of the letter entitled: MINING PERMIT APPLICATION ON PORTION OF PORTION 15 OF THE FARM MIDDELBURG 231 IR SITUATED UNDER THE DELMAS MAGISTERIAL DISTRICT, MPUMALANGA PROVINCE

Please comment and return to:

Physical address:	Office No. 16, First Floor (South Block), Corridor Hill Crossing, 09 Langa Crescent Corridor Hill, eMalahleni, 1035.
Postal address	P/Bag X7297 Postnet Suite 87 Highveld Mall Witbank 1035
Tell No:	+27 13 6920 041
Cell No:	+27 72 116 1225
Fax No:	+27 86 5144 103
Email:	admin@singoconsulting.co.za kenneth@singoconsulting.co.za deshney@singoconsulting.co.za

Personal Details:

Full Names and Surname:							
Contact Details:							
Tel(w):		Tel(h):		Fax No:		Cell No:	
Email:							
Physical Address:							
Postal Address:							
Preferred method of communication: fax <input type="checkbox"/> e-mail <input type="checkbox"/> post <input type="checkbox"/>							
Preferred telephonic communication: cell <input type="checkbox"/> home <input type="checkbox"/> work <input type="checkbox"/>							
Organisation/Representative:							



Farm name, number and subdivision or Street
Address (if applicable):

1. What is your interest in the proposed project? E.g. Property Owner/ Lessee/ Tenant? Please provide details of the property.

2. Do you have grounds for concerns in respect to this application? Please tick the appropriate box and substantiate.

YES

NO

3. Categorized issues of concerns: Please "X" the appropriate box

<input type="checkbox"/>	Air quality	<input type="checkbox"/>	Noise
<input type="checkbox"/>	Archaeology	<input type="checkbox"/>	Soil
<input type="checkbox"/>	Surface water	<input type="checkbox"/>	Employment
<input type="checkbox"/>	Groundwater	<input type="checkbox"/>	Security
<input type="checkbox"/>	Ecology	<input type="checkbox"/>	Visual
<input type="checkbox"/>	Land use and Planning Waste management	<input type="checkbox"/>	Quality of life Property value
<input type="checkbox"/>	Economy	<input type="checkbox"/>	Nuisance

4. If yes, please list and elaborate further.



5. Are there, in your opinion, any other interested/ or affected parties that should be contacted in relation to this application? Please "X" appropriate box.

YES

NO

6. If yes, please provide their contact details:

Name:		Organization:	
Contact details			
Address:			
Tel No:	Fax No:	Cell No:	
Email address:			

SIGNATURE: _____

DATE: _____

THANK YOU



4E: Site notice placement



NOTICE OF PUBLIC PARTICIPATION FOR MINING PERMIT AND ENVIRONMENTAL AUTHORIZATION APPLICATION

Notice of Mining Permit Application Process as per the Minerals and Petroleum Resources Development Act (Act 28 of 2002) for the proposed mining permit project on portion of portion 15 of the farm Middelburg 231 IR under the Magisterial District of Delmas, Mpumalanga Province (See Fig 1). DMRE REF: (MP 30/5/1/3/2/12552 MP).



Figure 1: Proposed mining permit area

INVITATION TO COMMENT

As part of the EIA process, more especially the Public Participation Process for this proposed project, Interested & Affected Parties are invited to register and kindly submit any comments or concerns to **Ms Deshney Mapoko** by no later than the **07th September 2020** using the contact details provided below. The public is also invited to review and comment on the Draft Basic Assessment Report (BAR) and EMP. The BAR & EMP Report will be available for a 30-days calendar period from the **08th September 2020 to the 08th October 2020**. Due to risks associated with Covid-19 mass meeting will not be held, hard copies reports may not be made available at any public place or premises close to the public, as contemplated in the regulation (Section 27(2) of the Disaster Management Act). Electronic copies will be made available upon request from Singo Consulting (Pty) Ltd. Using the detailed EAP'S contact's below, via emails; Dropbox link; Google drive; WeTransfer, etc.

ENVIRONMENTAL ASSESSMENT PRACTITIONER AND CLIENT DETAILS:

Singo Consulting (Pty) Ltd

Office No.16, First Floor, Corridor Hill Crossing, 09 Langa Crescent, Corridor Hill, eMalahleni, 1035.

Ms Deshney Mapoko
Tel: +27 13 692 0041
Fax: +27 86 514 4103
Cell: +27 72 116 1225
Email: deshney@singoconsulting.co.za

MOTAU MINING

2682 Marokwane Street, Botleng, Delmas, Mpumalanga, 2210

Mr T.P Motau
Tel No.: +27 82 543 0677
Fax No.: +27 86 5144 103
Cell No.: +27 82 543 0677
Email: thabo@motaumining.co.za

HUAWEI P30 lite
TRIPLE CAMERA

Appendix 4: Stakeholder engagement



Good day,

Receive warm greetings from Singo Consulting (Pty) Ltd.

You are kindly receiving this email as an enquiry for any possible land claim on **Portion of Portion 15 of the Farm Middleburg 231 IR**, situated in the Delmas Magisterial District, Mpumalanga Province. (DMR Ref: MP 30/5/1/3/2/ (12552) MP).

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

- Register as an I&APs 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 Programme Report (EMPr); and
- Inform any other person / organization that they may feel should be informed about the project.

Your feedback will be greatly appreciated because it will enable us to develop a well-informed **BAR** and **EMPr**.

Kind Regards,

Mapoko Deshney
Junior Consultant

Environmental Sciences (Cand.)

+27 13 692 0041
+27 72 1161 225
+27 86 514 4103

Singo Consulting (Pty) Ltd

www.singoconsulting.co.za
deshney@singoconsulting.co.za
09 Langa Crescent, Corridor Hill Crossing
First Floor (South Block), Office No. 16, eMalaheni



Good day,

Receive warm greetings from Singo Consulting (Pty) Ltd.

You are kindly receiving this email as an enquiry for any possible land claim on **Portion of Portion 15 of the Farm Middleburg 231 IR**, situated in the Delmas Magisterial District, Mpumalanga Province. **(DMR Ref: MP 30/5/1/3/2/ (12552) MP)**.

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

- Register as an I&APs 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 Programme Report (EMPr); and
- Inform any other person / organization that they may feel should be informed about the project.

Your feedback will be greatly appreciated because it will enable us to develop a well-informed **BAR** and **EMPr**.

Kind Regards,

Mapoko Deshney
Junior Consultant



Environmental Sciences (Cand.)

+27 13 692 0041
+27 72 1161 225
+27 86 514 4103

www.singoconsulting.co.za
deshney@singoconsulting.co.za
09 Langa Crescent, Corridor Hill Crossing
First Floor (South Block), Office No. 16, eMalahleni



Singo Consulting (Pty) Ltd



Good day,

Receive warm greetings from Singo Consulting (Pty) Ltd.

You are kindly receiving this email as an enquiry for any possible land claim on **Portion of Portion 15 of the Farm Middleburg 231 IR**, situated in the Delmas Magisterial District, Mpumalanga Province. **(DMR Ref: MP 30/5/1/3/2/ (12552) MP).**

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

- Register as an I&APs 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 Programme Report (EMPr); and
- Inform any other person / organization that they may feel should be informed about the project.

Your feedback will be greatly appreciated because it will enable us to develop a well-informed **BAR** and **EMPr**.

Kind Regards,

<p>Mapoko Deshney Junior Consultant</p>  <p>Environmental Sciences (Cand.)</p>	<p>+27 13 692 0041 +27 72 1161 225 +27 86 514 4103</p>	<p> Singo Consulting (Pty) Ltd</p> <p>www.singoconsulting.co.za deshney@singoconsulting.co.za 09 Langa Crescent, Corridor Hill Crossing First Floor (South Block), Office No. 16, eMalaheni</p>
--	--	---



Good day

I hope this email finds you well.

Singo Consulting (Pty) Ltd on behalf of **Motau Mining Services (Pty) Ltd** hereby wishes to inform you that it has submitted an application for a Mining Permit together with an Environmental Authorization to the Mpumalanga Department of Mineral Resources & Energy (DMRE) regarding the proposed project for the extraction of **Sand, Aggregates, Silica and Decorative stones (Gemstones)** on **portion of portion 15 of the farm Middelburg 231 IR**, situated in the Delmas Magisterial District, Mpumalanga 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) where one of the requirements is that all stakeholders must be notified of the **Motau Mining Services'** intentions to obtain Mining Permit for the above mentioned minerals. This invitation is extended to you as the department you serve may somehow enforcing any of the laws of the Republic of South Africa that ensure; pollution prevention & environmental degradation, encourage sustainable development & socio-economic development, or might be affected by activities to be taking place instead. Hence you are being offered an opportunity to:

- Register as an Interested and Affected Party (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 Programme report (EMPr)

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

Please find the attached **Background Information Document (BID)** for detailed description of the proposed project and timelines.

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

Kind regards,



Mapoko Deshney
Junior Consultant

Environmental Sciences (Cand.)

+27 13 692 0041
+27 72 1161 225
+27 86 514 4103

www.singoconsulting.co.za
deshney@singoconsulting.co.za
09 Langa Crescent, Corridor Hill Crossing
First Floor (South Block), Office No. 16, eMalahleni

Singo Consulting (Pty) Ltd



Reply Reply All Forward

Tue 2020/08/11 12:28

deshney@singoconsulting.co.za

STAKEHOLDER INVITATION TO COMMENT ON THE PROPOSED MINING PERMIT APPLICATION ON PORTION OF PORTION 15 OF THE FARM MIDDELBURG 231 IR, DMR REF: MP/30/5/1/3/2/12552 MP

To 'Tshilisanani Tshifularo'

Cc 'kenneth@singoconsulting.co.za'; 'Kefilwe Mputle'; 'abel@singoconsulting.co.za'; 'betty@singoconsulting.co.za'; 'rinae@singoconsulting.co.za'

Background Information...
816 KB

Good day

I hope this email finds you well.

Singo Consulting (Pty) Ltd on behalf of **Motau Mining Services (Pty) Ltd** hereby wishes to inform you that it has submitted an application for a Mining Permit together with an Environmental Authorization to the Mpumalanga Department of Mineral Resources & Energy (DMRE) regarding the proposed project for the extraction of **Sand, Aggregates, Silica and Decorative stones (Gemstones)** on **portion of portion 15 of the farm Middelburg 231 IR**, situated in the Delmas Magisterial District, Mpumalanga 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) where one of the requirements is that all stakeholders must be notified of the **Motau Mining Services'** intentions to obtain Mining Permit for the above mentioned minerals. This invitation is extended to you as the department you serve may somehow enforcing any of the laws of the Republic of South Africa that ensure; pollution prevention & environmental degradation, encourage sustainable development & socio-economic development, or might be affected by activities to be taking place instead. Hence you are being offered an opportunity to:

- Register as an Interested and Affected Party (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 Programme report (EMPr)

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

Please find the attached **Background Information Document (BID)** for detailed description of the proposed project and timelines.

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

Kind regards,

Mapoko Deshney
Junior Consultant



Environmental Sciences (Cand.)



Singo Consulting (Pty) Ltd

+27 13 692 0041

+27 72 1161 225

+27 86 514 4103

www.singoconsulting.co.za

deshney@singoconsulting.co.za

09 Langa Crescent, Corridor Hill Crossing
First Floor (South Block), Office No. 16, eMalahleni

Reply
Reply All
Forward



Tue 2020/08/11 12:29

deshney@singoconsulting.co.za

STAKEHOLDER INVITATION TO COMMENT ON THE PROPOSED MINING PERMIT APPLICATION ON PORTION OF PORTION 15 OF THE FARM MIDDELBURG 231 IR, DMR REF: MP/30/5/1/3/2/12552 MP

To: 'wayleavesmou@eskom.co.za'

Cc: 'kenneth@singoconsulting.co.za'; 'Kefilwe Mputle'; 'abel@singoconsulting.co.za'; 'betty@singoconsulting.co.za'; 'rinae@singoconsulting.co.za'



Background Informatio...
816 KB

Good day

I hope this email finds you well.

Singo Consulting (Pty) Ltd on behalf of **Motau Mining Services (Pty) Ltd** hereby wishes to inform you that it has submitted an application for a Mining Permit together with an Environmental Authorization to the Mpumalanga Department of Mineral Resources & Energy (DMRE) regarding the proposed project for the extraction of **Sand, Aggregates, Silica and Decorative stones (Gemstones)** on **portion of portion 15 of the farm Middelburg 231 IR**, situated in the Delmas Magisterial District, Mpumalanga 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) where one of the requirements is that all stakeholders must be notified of the **Motau Mining Services'** intentions to obtain Mining Permit for the above mentioned minerals. This invitation is extended to you as the department you serve may somehow enforcing any of the laws of the Republic of South Africa that ensure; pollution prevention & environmental degradation, encourage sustainable development & socio-economic development, or might be affected by activities to be taking place instead. Hence you are being offered an opportunity to:

- Register as an Interested and Affected Party (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 Programme report (EMPr)

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

Please find the attached **Background Information Document (BID)** for detailed description of the proposed project and timelines.

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

Kind regards,

Mapoko Deshney
Junior Consultant

Environmental Sciences (Cand.)

Singo Consulting (Pty) Ltd

+27 13 692 0041
+27 72 1161 225
+27 86 514 4103

www.singoconsulting.co.za
deshney@singoconsulting.co.za
09 Langa Crescent, Corridor Hill Crossing
First Floor (South Block), Office No. 16, eMalahleni



Deshney

Please find attached response/acknowledgement of receipt?

Regards



Yuza Chabalala Pr.Sci.Nat
Consultant: Environment and Sustainability
Risk Management
Transnet Freight Rail

☎ 012 315 3614 ☎ 060 583 4470
🌐 www.transnet.net ✉ Yuza.Chabalala@transnet.net

From: deshney@singoconsulting.co.za [<mailto:deshney@singoconsulting.co.za>]
Sent: Tuesday, 11 August 2020 12:29
To: Yuza Chabalala Transnet Freight Rail PTA
Cc: kenneth@singoconsulting.co.za; 'Kefilwe Mputle'; abel@singoconsulting.co.za;
betty@singoconsulting.co.za; rinae@singoconsulting.co.za
Subject: STAKEHOLDER INVITATION TO COMMENT ON THE PROPOSED MINING PERMIT APPLICATION ON PORTION OF PORTION 15 OF THE FARM MIDDELBURG 231 IR, DMR REF: MP/30/5/1/3/2/12552 MP

Good day

I hope this email finds you well.

Singo Consulting (Pty) Ltd on behalf of **Motau Mining Services (Pty) Ltd** hereby wishes to inform you that it has submitted an application for a Mining Permit together with an Environmental Authorization to the Mpumalanga Department of Mineral Resources & Energy (DMRE) regarding the proposed project for the extraction of **Sand, Aggregates, Silica and Decorative stones (Gemstones)** on **portion of portion 15 of the farm Middelburg 231 IR**, situated in the Delmas Magisterial District, Mpumalanga 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) where one of the requirements is that all stakeholders must be notified of the **Motau Mining**

Services' intentions to obtain Mining Permit for the above mentioned minerals. This invitation is extended to you as the department you serve may somehow enforcing any of the laws of the Republic of South Africa that ensure; pollution prevention & environmental degradation, encourage sustainable development & socio-economic development, or might be affected by activities to be taking place instead. Hence you are being offered an opportunity to:

- Register as an Interested and Affected Party (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 Programme report (EMPr)

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

Please find the attached **Background Information Document (BID)** for detailed description of the proposed project and timelines.

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

Kind regards,

Mapoko Deshney
Junior Consultant



Environmental Sciences (Cand.)

+27 13 692 0041
+27 72 1161 225
+27 86 514 4103

www.singoconsulting.co.za
deshney@singoconsulting.co.za
09 Langa Crescent, Corridor Hill Crossing
First Floor (South Block), Office No. 16, eMalohleni



Singo Consulting (Pty) Ltd

Reply Reply All Forward

Tue 2020/08/11 12:31

deshney@singoconsulting.co.za

STAKEHOLDER INVITATION TO COMMENT ON THE PROPOSED MINING PERMIT APPLICATION ON PORTION OF PORTION 15 OF THE FARM MIDDELBURG 231 IR, DMR REF: MP/30/5/1/3/2/12552 MP

To: 'Tshilidzi.Mavulwana@transnet.net'

Cc: 'kenneth@singoconsulting.co.za'; 'Kefilwe Mputle'; 'abel@singoconsulting.co.za'; 'betty@singoconsulting.co.za'; 'rinae@singoconsulting.co.za'

 Background Informatio...
816 KB

Good day

I hope this email finds you well.

Singo Consulting (Pty) Ltd on behalf of **Motau Mining Services (Pty) Ltd** hereby wishes to inform you that it has submitted an application for a Mining Permit together with an Environmental Authorization to the Mpumalanga Department of Mineral Resources & Energy (DMRE) regarding the proposed project for the extraction of **Sand, Aggregates, Silica and Decorative stones (Gemstones)** on **portion of portion 15 of the farm Middelburg 231 IR**, situated in the Delmas Magisterial District, Mpumalanga 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) where one of the requirements is that all stakeholders must be notified of the **Motau Mining Services'** intentions to obtain Mining Permit for the above mentioned minerals. This invitation is extended to you as the department you serve may somehow enforcing any of the laws of the Republic of South Africa that ensure; pollution prevention & environmental degradation, encourage sustainable development & socio-economic development, or might be affected by activities to be taking place instead. Hence you are being offered an opportunity to:

- Register as an Interested and Affected Party (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 Programme report (EMPr)

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

Please find the attached **Background Information Document (BID)** for detailed description of the proposed project and timelines.

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

Kind regards,



Mapoko Deshney
Junior Consultant

Environmental Sciences (Cand.)

+27 13 692 0041
+27 72 1161 225
+27 86 514 4103

www.singoconsulting.co.za
deshney@singoconsulting.co.za
09 Langa Crescent, Corridor Hill Crossing
First Floor (South Block), Office No. 16, eMalahleni



Singo Consulting (Pty) Ltd

 Reply
  Reply All
  Forward



Tue 2020/08/11 12:31
deshney@singoconsulting.co.za

STAKEHOLDER INVITATION TO COMMENT ON THE PROPOSED MINING PERMIT APPLICATION ON PORTION OF PORTION 15 OF THE FARM MIDDELBURG 231 IR, DMR REF: MP/30/5/1/3/2/12552 MP

To: 'RhulaniC@daff.gov.za'

Cc: 'kenneth@singoconsulting.co.za'; 'Kefilwe Mputle'; 'abel@singoconsulting.co.za'; 'betty@singoconsulting.co.za'; 'rinae@singoconsulting.co.za'

 Background Informatio...
816 KB

Good day

I hope this email finds you well.

Singo Consulting (Pty) Ltd on behalf of **Motau Mining Services (Pty) Ltd** hereby wishes to inform you that it has submitted an application for a Mining Permit together with an Environmental Authorization to the Mpumalanga Department of Mineral Resources & Energy (DMRE) regarding the proposed project for the extraction of **Sand, Aggregates, Silica and Decorative stones (Gemstones)** on **portion of portion 15 of the farm Middelburg 231 IR**, situated in the Delmas Magisterial District, Mpumalanga 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) where one of the requirements is that all stakeholders must be notified of the **Motau Mining Services'** intentions to obtain Mining Permit for the above mentioned minerals. This invitation is extended to you as the department you serve may somehow enforcing any of the laws of the Republic of South Africa that ensure; pollution prevention & environmental degradation, encourage sustainable development & socio-economic development, or might be affected by activities to be taking place instead. Hence you are being offered an opportunity to:

- Register as an Interested and Affected Party (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 Programme report (EMPr)

Singo Consulting (Pty) Ltd has been appointed as an independent Environmental Assessment Practitioner (EAP) to manage the environmental authorization process by conducting an Environmental Impact Assessment, Public Participation for the proposed project and compile an

Environmental Management Programme report. A Basic Assessment process has commenced, for your participation kindly fill the registration and comment form at the end of the Background Information Document attached and register your comments, issues, questions that you have about the proposed project. Should you need any clarity on the attached document or have any queries with regards to the project, please do not hesitate to contact me (appointed EAP) on the details below.

Please find the attached **Background Information Document (BID)** for detailed description of the proposed project and timelines.

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

Kind regards,

Mapoko Deshney
Junior Consultant

Environmental Sciences (Cand.)

+27 13 692 0041
+27 72 1161 225
+27 86 514 4103

www.singoconsulting.co.za
deshney@singoconsulting.co.za
09 Langa Crescent, Corridor Hill Crossing
First Floor (South Block), Office No. 16, eMalahleni

Singo Consulting (Pty) Ltd

Reply Reply All Forward

Tue 2020/08/11 12:32

deshney@singoconsulting.co.za

STAKEHOLDER INVITATION TO COMMENT ON THE PROPOSED MINING PERMIT APPLICATION ON PORTION OF PORTION 15 OF THE FARM MIDDELBURG 231 IR, DMR REF: MP/30/5/1/3/2/12552 MP

To: 'NevondoS@dws.gov.za'

Cc: 'kenneth@singoconsulting.co.za'; 'Kefilwe Mputle'; 'abel@singoconsulting.co.za'; 'betty@singoconsulting.co.za'; 'rinae@singoconsulting.co.za'

Background Information...
816 KB

Good day

I hope this email finds you well.

Singo Consulting (Pty) Ltd on behalf of **Motau Mining Services (Pty) Ltd** hereby wishes to inform you that it has submitted an application for a Mining Permit together with an Environmental Authorization to the Mpumalanga Department of Mineral Resources & Energy (DMRE) regarding the proposed project for the extraction of **Sand, Aggregates, Silica and Decorative stones (Gemstones)** on **portion of portion 15 of the farm Middelburg 231 IR**, situated in the Delmas Magisterial District, Mpumalanga 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) where one of the requirements is that all stakeholders must be notified of the **Motau Mining Services'** intentions to obtain Mining Permit for the above mentioned minerals. This invitation is extended to you as the department you serve may somehow enforcing any of the laws of the

Republic of South Africa that ensure; pollution prevention & environmental degradation, encourage sustainable development & socio-economic development, or might be affected by activities to be taking place instead. Hence you are being offered an opportunity to:

- Register as an Interested and Affected Party (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 Programme report (EMPr)

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

Please find the attached **Background Information Document (BID)** for detailed description of the proposed project and timelines.

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

Kind regards,

Mapoko Deshney
Junior Consultant

Environmental Sciences (Cand.)

Singo Consulting (Pty) Ltd

+27 13 692 0041
+27 72 1161 225
+27 86 514 4103

www.singoconsulting.co.za
deshney@singoconsulting.co.za
09 Langa Crescent, Corridor Hill Crossing
First Floor (South Block), Office No. 16, eMalahleni

Reply Reply All Forward

Tue 2020/08/11 12:32

deshney@singoconsulting.co.za

STAKEHOLDER INVITATION TO COMMENT ON THE PROPOSED MINING PERMIT APPLICATION ON PORTION OF PORTION 15 OF THE FARM MIDDELBURG 231 IR, DMR REF: MP/30/5/1/3/2/12552 MP

To: 'TRamavhona@environment.gov.za'

Cc: 'kenneth@singoconsulting.co.za'; 'Kefilwe Mputle'; 'abel@singoconsulting.co.za'; 'betty@singoconsulting.co.za'; 'rinae@singoconsulting.co.za'

Background Informatio...
816 KB

Good day

I hope this email finds you well.

Singo Consulting (Pty) Ltd on behalf of **Motau Mining Services (Pty) Ltd** hereby wishes to inform you that it has submitted an application for a Mining Permit together with an Environmental Authorization to the Mpumalanga Department of Mineral Resources & Energy (DMRE) regarding the proposed project for the extraction of **Sand, Aggregates, Silica and Decorative stones (Gemstones)** on **portion of portion 15 of the farm Middelburg 231 IR**, situated in the Delmas Magisterial District, Mpumalanga 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) where one of the requirements is that all stakeholders must be notified of the **Motau Mining Services'** intentions to obtain Mining Permit for the above mentioned minerals. This invitation is extended to you as the department you serve may somehow enforcing any of the laws of the Republic of South Africa that ensure; pollution prevention & environmental degradation, encourage sustainable development & socio-economic development, or might be affected by activities to be taking place instead. Hence you are being offered an opportunity to:

- Register as an Interested and Affected Party (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 Programme report (EMPr)

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

Please find the attached **Background Information Document (BID)** for detailed description of the proposed project and timelines.

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

Kind regards,



Mapoko Deshney
Junior Consultant

Environmental Sciences (Cand.)

+27 13 692 0041
+27 72 1161 225
+27 86 514 4103

Singo Consulting (Pty) Ltd

www.singoconsulting.co.za
deshney@singoconsulting.co.za
09 Langa Crescent, Corridor Hill Crossing
First Floor (South Block), Office No. 16, eMalahleni



Good day

I hope this email finds you well.

Singo Consulting (Pty) Ltd on behalf of **Motau Mining Services (Pty) Ltd** hereby wishes to inform you that it has submitted an application for a Mining Permit together with an Environmental Authorization to the Mpumalanga Department of Mineral Resources & Energy (DMRE) regarding the proposed project for the extraction of **Sand, Aggregates, Silica and Decorative stones (Gemstones)** on **portion of portion 15 of the farm Middelburg 231 IR**, situated in the Delmas Magisterial District, Mpumalanga 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) where one of the requirements is that all stakeholders must be notified of the **Motau Mining Services'** intentions to obtain Mining Permit for the above mentioned minerals. This invitation is extended to you as the department you serve may somehow enforcing any of the laws of the Republic of South Africa that ensure; pollution prevention & environmental degradation, encourage sustainable development & socio-economic development, or might be affected by activities to be taking place instead. Hence you are being offered an opportunity to:

- Register as an Interested and Affected Party (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 Programme report (EMPr)

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

Please find the attached **Background Information Document (BID)** for detailed description of the proposed project and timelines.

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

Kind regards,

Mapoko Deshney
Junior Consultant

Environmental Sciences (Cand.)

+27 13 692 0041
+27 72 1161 225
+27 86 514 4103

www.singoconsulting.co.za
deshney@singoconsulting.co.za
09 Langa Crescent, Corridor Hill Crossing
First Floor (South Block), Office No. 16, eMalaheni

Singo Consulting (Pty) Ltd

Reply Reply All Forward

Tue 2020/08/11 12:33

deshney@singoconsulting.co.za

STAKEHOLDER INVITATION TO COMMENT ON THE PROPOSED MINING PERMIT APPLICATION ON PORTION OF PORTION 15 OF THE FARM MIDDELBURG 231 IR, DMR REF: MP/30/5/1/3/2/12552 MP

To 'secmayor@victorkhanyelm.gov.za'

Cc 'kenneth@singoconsulting.co.za'; 'Kefilwe Mputle'; 'abel@singoconsulting.co.za'; 'betty@singoconsulting.co.za'; 'rinae@singoconsulting.co.za'

Background Informatio...
816 KB

Good day

I hope this email finds you well.

Singo Consulting (Pty) Ltd on behalf of **Motau Mining Services (Pty) Ltd** hereby wishes to inform you that it has submitted an application for a Mining Permit together with an Environmental Authorization to the Mpumalanga Department of Mineral Resources & Energy (DMRE) regarding the proposed project for the extraction of **Sand, Aggregates, Silica and Decorative stones (Gemstones)** on **portion of portion 15 of the farm Middelburg 231 IR**, situated in the Delmas Magisterial District, Mpumalanga 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) where one of the requirements is that all stakeholders must be notified of the **Motau Mining Services'** intentions to obtain Mining Permit for the above mentioned minerals. This invitation is extended to you as the department you serve may somehow enforcing any of the laws of the Republic of South Africa that ensure; pollution prevention & environmental degradation, encourage sustainable development & socio-economic development, or might be affected by activities to be taking place instead. Hence you are being offered an opportunity to:

- Register as an Interested and Affected Party (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 Programme report (EMPr)

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

Please find the attached **Background Information Document (BID)** for detailed description of the proposed project and timelines.

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

Kind regards,

<p>Mapoko Deshney Junior Consultant</p>  <p>Environmental Sciences (Cand.)</p>	<p>+27 13 692 0041 +27 72 1161 225 +27 86 514 4103</p>	<p>www.singoconsulting.co.za deshney@singoconsulting.co.za 09 Langa Crescent, Corridor Hill Crossing First Floor (South Block), Office No. 16, eMalahleni</p>	 <p>Singo Consulting (Pty) Ltd</p>
--	--	---	---

 Reply
  Reply All
  Forward



Thu 2020/09/03 11:26

deshney@singoconsulting.co.za

STAKEHOLDER INVITATION TO COMMENT ON THE PROPOSED MINING PERMIT APPLICATION ON PORTION OF PORTION 15 OF THE FARM MIDDELBURG 231 IR, DMR REF: MP/30/5/1/3/2/12552 MP

To: 'diane@conteltech.co.za'

Cc: 'kenneth@singoconsulting.co.za'; 'abel@singoconsulting.co.za'; 'betty@singoconsulting.co.za'; 'rinae@singoconsulting.co.za'; 'Kefilwe Mputle'; 'Owen Netshavha'; 'siyabonga@singoconsulting.co.za'

 You forwarded this message on 2020/09/10 09:46.

 Background Informatio...
815 KB

Good day

I hope this email finds you well.

Singo Consulting (Pty) Ltd on behalf of **Motau Mining Services (Pty) Ltd** hereby wishes to inform you that it has submitted an application for a Mining Permit together with an Environmental Authorization to the Mpumalanga Department of Mineral Resources & Energy (DMRE) regarding the proposed project for the extraction of **Sand, Aggregates, Silica and Decorative stones (Gemstones)** on **portion of portion 15 of the farm Middelburg 231 IR**, situated in the Delmas Magisterial District, Mpumalanga 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) where one of the requirements is that all stakeholders must be notified of the **Motau Mining Services'** intentions to obtain Mining Permit for the above mentioned minerals. This invitation is extended to you as the department you serve may somehow enforcing any of the laws of the Republic of South Africa that ensure; pollution prevention & environmental degradation, encourage sustainable development & socio-economic development, or might be affected by activities to be taking place instead. Hence you are being offered an opportunity to:

- Register as an Interested and Affected Party (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 Programme report (EMPr)

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

Please find the attached **Background Information Document (BID)** for detailed description of the proposed project and timelines.

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

Kind regards,



Mapoko Deshney
Junior Consultant

Environmental Sciences (Cand.)

+27 13 692 0041
+27 72 1161 225
+27 86 514 4103

Singo Consulting (Pty) Ltd

www.singoconsulting.co.za
deshney@singoconsulting.co.za
09 Langa Crescent, Corridor Hill Crossing
First Floor (South Block), Office No. 16, eMalahleni



Good day,

I hope this email finds you well.

Singo Consulting (Pty) Ltd on behalf of **Motau Mining Services** hereby wishes to inform you that it has submitted an application for a Mining Permit together with an Environmental Authorization to the Mpumalanga Department of Mineral Resources & Energy (DMRE) regarding the proposed project for the extraction of **Sand, Aggregates, Silica and Decorative stones (Gemstones)** on **portion of portion 15 of the farm Middelburg 231 IR**, situated in the Delmas Magisterial District, Mpumalanga Province. **DMR REF: MP/30/5/1/3/2/12552 MP**

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) where one of the requirements is that all stakeholders must be notified of the **Motau Mining Services'** intentions to obtain Mining Permit for the above mentioned minerals. This invitation is extended to you as the department you serve may somehow enforcing any of the laws of the Republic of South Africa that ensure; pollution prevention & environmental degradation, encourage sustainable development & socio-economic development, or might be affected by activities to be taking place instead. Hence you are being offered an opportunity to:

- Register as an Interested and Affected Party (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 Programme report (EMPr)

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

Please find the attached **Background Information Document (BID)** for detailed description of the proposed project and timelines.

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

Kind regards,



Mapoko Deshney
Junior Consultant

Environmental Sciences (Cand.)

Singo Consulting (Pty) Ltd

+27 13 692 0041
+27 72 1161 225
+27 86 514 4103

www.singoconsulting.co.za
deshney@singoconsulting.co.za
09 Langa Crescent, Corridor Hill Crossing
First Floor (South Block), Office No. 16, eMalahleni



Reply Reply All Forward

Thu 2020/09/03 11:25

deshney@singoconsulting.co.za

STAKEHOLDER INVITATION TO COMMENT ON THE PROPOSED MINING PERMIT APPLICATION ON PORTION OF PORTION 15 OF THE FARM MIDDELBURG 231 IR, DMR REF: MP/30/5/1/3/2/12552 MP

To 'lindaz@victorkhanyelm.gov.za'

Cc 'kenneth@singoconsulting.co.za'; 'abel@singoconsulting.co.za'; 'betty@singoconsulting.co.za'; 'rinae@singoconsulting.co.za'; 'Kefilwe Mputle'; 'Owen Netshiavha'; 'siyabonga@singoconsulting.co.za'

Background Information...
815 KB

Good day,

I hope this email finds you well.

Singo Consulting (Pty) Ltd on behalf of **Motau Mining Services** hereby wishes to inform you that it has submitted an application for a Mining Permit together with an Environmental Authorization to the Mpumalanga Department of Mineral Resources & Energy (DMRE) regarding the proposed project for the extraction of **Sand, Aggregates, Silica and Decorative stones (Gemstones)** on **portion of portion 15 of the farm Middelburg 231 IR**, situated in the Delmas Magisterial District, Mpumalanga Province. **DMR REF: MP/30/5/1/3/2/12552 MP**

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) where one of the requirements is that all stakeholders must be notified of the **Motau Mining Services'** intentions to obtain Mining Permit for the above mentioned minerals. This invitation is extended to you as the department you serve may somehow enforcing any of the laws of the Republic of South Africa that ensure; pollution prevention & environmental degradation, encourage sustainable development & socio-economic development, or might be affected by activities to be taking place instead. Hence you are being offered an opportunity to:

- Register as an Interested and Affected Party (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 Programme report (EMPr)

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

Please find the attached **Background Information Document (BID)** for detailed description of the proposed project and timelines.

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

Kind regards,

Mapoko Deshney
Junior Consultant

Environmental Sciences (Cand.)

+27 13 692 0041
+27 72 1161 225
+27 86 514 4103

www.singoconsulting.co.za
deshney@singoconsulting.co.za
09 Langa Crescent, Corridor Hill Crossing
First Floor (South Block), Office No. 16, eMalahleni

Reply Reply All Forward

Thu 2020/09/03 11:25
deshney@singoconsulting.co.za

STAKEHOLDER INVITATION TO COMMENT ON THE PROPOSED MINING PERMIT APPLICATION ON PORTION OF PORTION 15 OF THE FARM MIDDELBURG 231 IR, DMR REF: MP/30/5/1/3/2/12552 MP

To: 'Thabitha Matladi'

Cc: 'kenneth@singoconsulting.co.za'; 'abel@singoconsulting.co.za'; 'betty@singoconsulting.co.za'; 'rinae@singoconsulting.co.za'; 'Kefilwe Mputle'; 'Owen Netshiavha'; 'siyabonga@singoconsulting.co.za'

Background Information...
815 KB

Good day,

I hope this email finds you well.

Singo Consulting (Pty) Ltd on behalf of **Motau Mining Services** hereby wishes to inform you that it has submitted an application for a Mining Permit together with an Environmental Authorization to the Mpumalanga Department of Mineral Resources & Energy (DMRE) regarding the proposed project for the extraction of **Sand, Aggregates, Silica and Decorative stones (Gemstones)** on **portion of portion 15 of the farm Middelburg 231 IR**, situated in the Delmas Magisterial District, Mpumalanga Province. **DMR REF: MP/30/5/1/3/2/12552 MP**

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) where one of the requirements is that all stakeholders must be notified of the **Motau Mining Services'** intentions to obtain Mining Permit for the above mentioned minerals. This invitation is extended to you as the department you serve may somehow enforcing any of the laws of the Republic of South Africa that ensure; pollution prevention & environmental degradation, encourage sustainable development & socio-economic development, or might be affected by activities to be taking place instead. Hence you are being offered an opportunity to:

- Register as an Interested and Affected Party (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 Programme report (EMPr)

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

Please find the attached **Background Information Document (BID)** for detailed description of the proposed project and timelines.

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

Kind regards,

Mapoko Deshney
Junior Consultant

Environmental Sciences (Cand.)

+27 13 692 0041
+27 72 1161 225
+27 86 514 4103

Singo Consulting (Pty) Ltd

www.singoconsulting.co.za
deshney@singoconsulting.co.za
09 Langa Crescent, Corridor Hill Crossing
First Floor (South Block), Office No. 16, eMalahleni



Good day,

I hope this email finds you well.

Singo Consulting (Pty) Ltd on behalf of **Motau Mining Services** hereby wishes to inform you that it has submitted an application for a Mining Permit together with an Environmental Authorization to the Mpumalanga Department of Mineral Resources & Energy (DMRE) regarding the proposed project for the extraction of **Sand, Aggregates, Silica and Decorative stones (Gemstones)** on **portion of portion 15 of the farm Middelburg 231 IR**, situated in the Delmas Magisterial District, Mpumalanga Province. **DMR REF: MP/30/5/1/3/2/12552 MP**

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) where one of the requirements is that all stakeholders must be notified of the **Motau Mining Services'** intentions to obtain Mining Permit for the above mentioned minerals. This invitation is extended to you as the department you serve may somehow enforcing any of the laws of the Republic of South Africa that ensure; pollution prevention & environmental degradation, encourage sustainable development & socio-economic development, or might be affected by activities to be taking place instead. Hence you are being offered an opportunity to:

- Register as an Interested and Affected Party (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 Programme report (EMPr)

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

Please find the attached **Background Information Document (BID)** for detailed description of the proposed project and timelines.

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

Kind regards,

Mapoko Deshney
Junior Consultant



Environmental Sciences (Cand.)

 +27 13 692 0041

 +27 72 1161 225

 +27 86 514 4103

 www.singoconsulting.co.za

 deshney@singoconsulting.co.za

 09 Langa Crescent, Corridor Hill Crossing
First Floor (South Block), Office No. 16, eMalahleni



Singo Consulting (Pty) Ltd

Appendix 5: Site conditions





Appendix 6: Financial provision

CALCULATION OF THE QUANTUM



MP 30/5/1/3/2/12552 MP

Applicant:
Evaluator:

Deshney Mapoko

Ref No.:
Date:

Oct-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)	Demolition of steel buildings and structures	m2	0	228	1	1	0
2(B)	Demolition of reinforced concrete buildings and structures	m2	0	336	1	1	0
3	Rehabilitation of access roads	m2	500	41	1	1	20500
4 (A)	Demolition and rehabilitation of electrified railway lines	m	0	395	1	1	0
4 (A)	Demolition and rehabilitation of non-electrified railway lines	m	0	216	1	1	0
5	Demolition of housing and/or administration facilities	m2	600	455	1	1	273000
6	Opencast rehabilitation including final voids and ramps	ha	4,47	238697	0,1	1	106697,559
7	Sealing of shafts adits and inclines	m3	0	122	1	1	0
8 (A)	Rehabilitation of overburden and spoils	ha	0,07	159131	1	1	11139,17
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	4,99	126059	0,1	1	62903,441
11	River diversions	ha	0	126059	1	1	0
12	Fencing	m	0	144	1	1	0
13	Water management	ha	0,03	47931	1	1	1437,93
14	2 to 3 years of maintenance and aftercare	ha	5	16776	1	1	83880
15 (A)	Specialist study	Sum	0	0	1	1	0
15 (B)	Specialist study	Sum	0	0	1	1	0
Sub Total 1							838340,75
1	Preliminary and General		100600,89		weighting factor 2 1		100600,89
2	Contingencies			83834,075			83834,075
Subtotal 2							1022775,72
SIGN	Deshney Mapoko				VAT (15%)		212545,57
DATE	2020/10/05				Grand Total		1235321

Appendix 7: Stakeholder correspondence

Transnet comments



17 August 2020
D. Maphoko
Singo Consulting (Pty) Ltd
09 Langa Crescent, Corridor Hill Crossings
eMalaheni,

Dear Deshney

Please be aware that Transnet does own land, railway lines, pipelines and other properties throughout the country and these maybe be affected by your proposed prospecting/mining rights which you are applying for.

We therefore wish to draw your attention to Section 48 (1) of the Minerals and Petroleum Resources Development Act, 2002 which stipulates as follows:

"S48. (1) Subject to section 20 of the National Parks Act, 1976 (Act No. 57 of 1976), and subsection (2), no reconnaissance permission, prospecting right, mining right or mining permit may be issued in respect of—
(a) land comprising a residential area;
(b) any public road, railway or cemetery;
(c) any land being used for public or government purposes or reserved in terms of any other law; or
(d) areas identified by the Minister by notice in the Gazette in terms of section 49."

Your attention is also drawn to Regulation 17 (6) (a) of the Mine Health and Safety Act, 1996, which determines that no mining operations may be carried out under or within a horizontal distance of 100 meters from buildings, roads, railways, reserves et cetera.

Please note that under no circumstances will Transnet SOC Limited permit, grant permission or consent to any prospecting or mining activities either on its premises, or within close proximity of its infrastructure without Transnet reviewing and approving the proposed projects' risk assessments.

Kind regards



Yuza Chabalala Pr.Sci.Nat
Consultant: Environment and Sustainability
Risk Management
Transnet Freight Rail

☎ 012 315 3614 📠 060 583 4470

🌐 www.transnet.net ✉ Yuza.Chabalala@transnet.net

ybChabs
17/08/2020

Transnet SOC Ltd
Registration Number
199000090030

Parktown
15 Ginton Road
Johannesburg
2001

Private Bag X 47
Parktown, Johannesburg
South Africa, 2000
T +27 86 0690 730

Directors: Dr PS Molele (Chairperson) [PV Darty] (Group Chief Executive) UN Phisoep ME Letlape OC Molekga Adv OM Molekga Dr PG Mubwand AP Ramabatsi GT Ramphiso LL van Zanten
NE Dierren* (Group Chief Financial Officer)
*Executive
Group Company Secretary: MP Mchabed

www.transnetfreight-rail.co.za/

Appendix 8: Specialist studies