Rich Rewards Trading 437 (Pty) Ltd Background Information Document

PUBLIC PARTICIPATION PROCESS

PUBLIC PARTICIPATION PROCESS FOR AN APPLICATION
FOR A MINING RIGHT FOR AGGREGATE, BARYTES
COBALT, COPPER, GOLD, GRAVEL, IRON ORE, LEAD,
LIMESTONE, MOLYBDENUM, STONE AGGREGATE GRAVEL,
PYRITE, SAND(GENERAL), SILVER, SULPHUR, SULPHUR IN
PYRITE, TUNGSTEN AND ZINC IN TERMS OF THE MINERAL
AND PETROLEUM RESOURCES DEVELOPMENT ACT, 2002
(ACT 28 OF 2002), THE NATIONAL ENVIROMENTAL
MANAGEMENT ACT, 1998 (ACT 107 OF 1998); THE
ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS
2014; THE NATIONAL ENVIRONMENTAL MANAGEMENT:
WASTE ACT, 2008 (ACT NO. 59 OF 2008) AND THE NATIONAL
WATER ACT, 1998, (ACT 36 OF 1998).

NC30/5/1/2/2/10174 MR

PORTION 1 (NEELDALE), PORTION 2 (WITKOP), PORTION 3 (EYERDOP PUT) AND PORTION 4 (ROOIPAN) (PORTION OF PORTION 2) OF EYERDOP PAN NO.58 SITUATED IN THE ADMINISTRATIVE DISTRICT OF PRIESKA, NORTHERN CAPE

Compiled by Ms. R.H. Oosthuizen

Wadala Mining and Consulting (Pty) Ltd



BACKGROUND INFORMATION DOCUMENT

1. INTRODUCTION

We hereby inform you that Rich Rewards Trading 437 (Pty) Ltd ("The applicant") has applied for a Mining Right on THE FARM EYERDOP PAN 58, PORTION 1 (Neeldale), 2 (Witkop), 3 (Eyerdop Put) AND 4 (Rooipan), PRIESKA REGISTRATION DIVISION, PRIESKA DISTRICT, NORTHERN CAPE PROVINCE, REPUBLIC OF SOUTH AFRICA (17 555,2978 Ha) situated in the Magisterial District of Prieska, Northern Cape Province.

The application was submitted to the Regional Manager, Department of Mineral Resources and Energy ("DMRE") situated at 41 Schmidtsdrift Road, Telkom Building, Kimberley, 8301 with contact number 053-807 1700. The mentioned application was accepted on 7 August 2020 and the prescribed Environmental Management Programme must be submitted according to the prescribed time frames.

2. PURPOSE OF THE BACKGROUND INFORMATION DOCUMENT

The purpose of this document is:

- To notify potential stakeholders of the application for a Mining Right for Aggregate, Barytes, Cobalt, Copper, Gold, Gravel, Iron Ore, Lead, Limestone, Molybdenum, Stone Aggregate Gravel, Pyrite, Sand (General), Silver, Sulphur, Sulphur In Pyrite, Tungsten and Zinc which was submitted to the Department of Mineral Resources and Energy (DMRE) with Reference NC30/5/1/2/2/10174 MR.
- Provide background information regarding the proposed Mining Right application for Rich Rewards Trading 437 (Pty) Ltd.
- Invite potential stakeholders to register themselves as interested and affected
 parties and to raise issues of importance, share their input, comments and or
 concerns which will be incorporated into the Environmental Management
 Programme.
- To inform the Affected and Interested Parties of the requirements in terms of all Governing Legislation applicable to this process.

The applicant seeks to gather comments, suggestions, issues and concerns from all stakeholders.

3. A BRIEF OVERVIEW

Rich Rewards Trading 437 (Pty) Ltd. ("The applicant") has applied for a Mining Right on the above mentioned area situated in the Magisterial District of Prieska, Northern Cape Province to mine for Aggregate, Barytes, Cobalt, Copper, Gold, Gravel, Iron Ore, Lead, Limestone,

Molybdenum, Stone Aggregate Gravel, Pyrite, Sand(General), Silver, Sulphur, Sulphur In Pyrite, Tungsten and Zinc.

The proposed Witkop Gold Mine area on the greater Marydale Project is located 55km northwest of Prieska and 16km southwest of the town of Marydale, Northern Cape Province.

3.1 Proposed activity description

It is planned to initially mine the project with an open pit targeting both the oxide and sulphide gold and copper bearing Mineral Resource. A number of processing options are being investigated with the heap-leach option being currently preferred. After Year 3 the material would be re-processed by CIL Leaching after milling the heap leach tailings down to 80 passing min 75 micron. The same electro winning plant will be used to extract the gold. The milled slimes will be stored in the same heap leach ponds from where heap leach tailings have been reclaimed.

Open-pit Mining Operation

A mining contractor strategy has been selected for the direct mining activities in the open-pit and all required mining equipment, mining consumables, labour and maintenance will be supplied by the contractor. The contractor will be required to set up suitable workshops and provide offices and stores facilities. It is anticipated that a 30 tonne ADT truck fleet will be used for ore and waste mining.

It is proposed that grade control drilling and resource modelling will be carried out by Company employees along with other technical services such as surveying, geotechnical engineering, mine planning, tenure management and environmental control.

3.2 Rehabilitation

On completion of the mining operation, the various surfaces, including the access road, the office area, storage areas and the plant site, will finally be rehabilitated as follows: All tailings or other material on the surface will be removed to the original topsoil level where possible. This material will then be backfilled into the open pits if underground mining is not going to take place. Any compacted area will then be ripped to a depth of 300mm, where possible, the topsoil or growth medium returned and landscaped.

All infrastructures, equipment, plant, and other items used during the operational period will be removed from the site.

On completion of operations, all buildings, structures or objects on the office site will be dealt with in accordance with regulation 44 of the Minerals and Petroleum Resources Development Act, 2002, which states:

Regulation 44:

1. When a prospecting right, mining right, retention permit or mining permit lapses, is cancelled or is abandoned or when any prospecting or mining



operation comes to an end, the holder of such right or permit may not demolish or remove any building, structure or object-

- which may not be demolished or removed in terms of any other law;
- which has been identified in writing by the Minister for *(b)* purposes of this section; or
- which is to be retained in terms of an agreement between the holder and the owner or occupier of the land, which agreement has been approved by the Minister in writing.
- The provision of subsection (1) does not apply to bona fide mining 2. equipment, which may be removed.

o Rehabilitation of the secured storage areas

On completion of the mining operation, the above areas will be cleared of any remaining contaminated soil which will be placed in acceptable containers and removed with the industrial waste to a recognized disposing facility or by a waste removal company.

All buildings, structures or objects in the secured storage areas shall be dealt with in accordance with regulation 44 of the Minerals and Petroleum Resources Development Act, 2002.

The surface will be ripped or ploughed to a depth of at least 300 mm, where possible, and the topsoil, previously stored adjacent the site, distributed evenly to its original depth over the whole area. The area will then be fertilized if necessary (based on a soil analysis).

The site will be seeded with a vegetation seed mix adapted to reflect the local indigenous flora if necessary.

Any other disturbed areas will be rehabilitated as described under the relevant activities.

o Mine residue deposits

Disposal facilities;

Waste material of all description inclusive of 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 or burned on the site.

- Ongoing seepage, control of rainwater; Monitoring of ground or surface water will take place during the mining phase if so, requested by the DWS - Kimberley.
- Long term stability and safety; It will be the objective of mine management to ensure the long-term stability of all rehabilitated areas including the open pit. This will be done by the monitoring of all areas until a closure certificate has been issued.



Final rehabilitation in respect of erosion and dust control; Self-sustaining vegetation will result in the control of erosion and dust and no further rehabilitation is planned.

o Rehabilitation of dangerous open pits

Due to the removal of surface material, open pits could be created that can be classified as dangerous. All available material will be used during backfilling to avoid the existence of unsafe pits.

o Final rehabilitation of opencast mine-haul ramps, roads and final voids After rehabilitation has been completed, all roads will be ripped or ploughed, fertilized and seeded, providing the landowner does not want them to remain that way and with written approval from the Director Mineral Development of the DMRE.

Submission of information

Reports on rehabilitation and monitoring will be submitted annually to the DMRE - Kimberley, as described in the NEMA regulations published 20 November 2015.

o Maintenance (Aftercare)

Maintenance after closure will mainly concern the regular inspection and monitoring and/or completion of the re-vegetation programme.

The aim of this Environmental Management Programme is for rehabilitation to be stable and self-sufficient, so that the least possible aftercare is required.

The aim with the closure of the mine will be to create an acceptable post-mine environment and land-use. Therefore, all agreed commitments will be implemented by Mine Management.

o After-effects following closure

Acid mine drainage;

The effects and consequences of acid drainage from open pit mines have become a concern recently. The large areas of exposed rock in open pits can result in large volumes of acid drainage. Long-term slope deterioration can result in a continual exposure of fresh rock to the natural elements and hence acid drainage generation. Therefore there is a potential for bad quality leachate or acid mine drainage development after mine closure.

- Long term impact on ground water; No after effect on the groundwater yield or quality is expected if mitigation measures are implemented.
- Long-term stability of rehabilitated land; One of the main aims of any rehabilitated ground will be to obtain a selfsustaining and stable end result. As the open pit will be mined onto bedrock these areas should have long term stability.



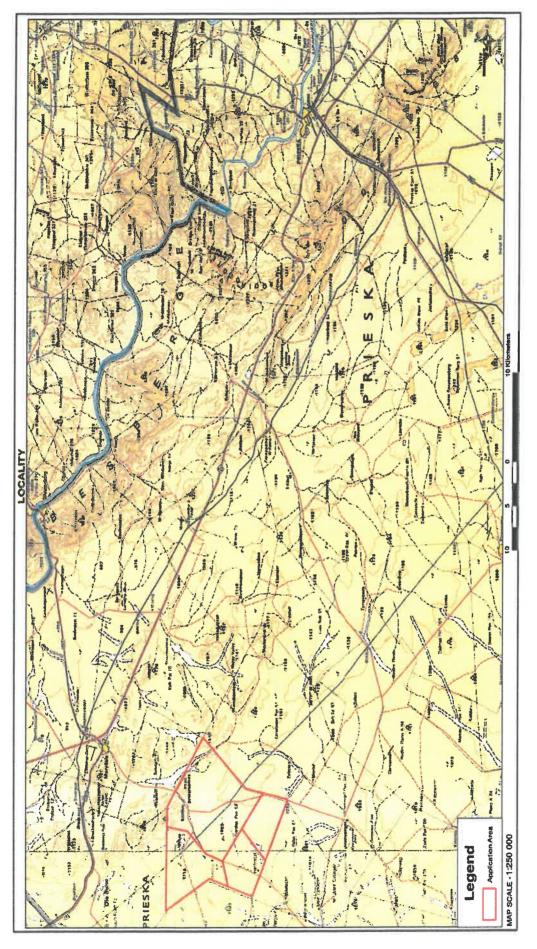


Figure 1. The locality of the proposed Mining Right area. The exact outline of the application area (17 555,2978 ha) is indicated in red in the inserted plan.



3.3 Foreseen Environmental Impacts

3.3.1 Air quality deterioration

Source of the impact

Sources of atmospheric emissions associated with the mining operation are likely to include fugitive dust from materials handling operations if mining takes place, wind erosion of stockpiles, and vehicle entrainment of gravel roads.

Description of the impact

During the construction and operation of the mining operation dust can be generated through the use of access roads and haul roads. Air pollution through vehicle entrainment is expected to be negligible due to the small scale of the project and dust suppression measures that will be implemented by the mine. Air pollution from exhaust fumes.

3.3.2 Soil pollution

Source of the impact

Spillage of hazardous material/runoff.

Description of the impact

During the construction and operation of the mine, there is a possibility that equipment might leak oil, thus causing surface spillages. The hydrocarbon soil contamination will render the soil unusable unless they are decontaminated. The storage of carbon-fuels on site might have an impact on soil if the tanks that are available on site are not properly monitored and maintained to avoid leakages. There is the potential that hazardous substances can be carried through runoff to contaminate water resources and soil stockpiled for rehabilitation. Soil pollution is therefore possible, but through mitigation it can be minimised. The impact will have minimal severity and be of small extent.

3.3.3 Loss of soil fertility

Source of the impact

During the removal of topsoil; stockpiling.

Description of the impact

Improper stockpiling and soil compaction can result in soil sterilisation. Leaching can also occur, resulting in the loss of nutrients.

3.3.4 Soil erosion

Source of the impact



Construction of infrastructure; topsoil removal; potential runoff.

Description of the impact

The construction of infrastructure and facilities in the mining area can result in loss of soil due to erosion. Vegetation will be stripped in preparation for placement of infrastructure and open pits, and therefore the areas will be bare and susceptible to erosion.

The topsoil that is stripped and stockpiled on surrounding areas can be eroded by wind and rain. The soil can be carried away during runoff. The cleared areas will be rehabilitated, but full restoration of soils might only occur over a number of months, subsequent to the re-establishment of vegetation. Therefore, the impact will have a moderate severity, throughout the duration of the mining operation.

3.3.5 Broad-scale ecological processes

Source of the impact

The construction of roads, plant site, as well as other necessary infrastructure; and the clearing of vegetation for mining.

Description of the impact

Transformation of intact habitat on a cumulative basis would contribute to the fragmentation of the landscape and would potentially disrupt the connectivity of the landscape for fauna and flora and impair their ability to respond to environmental fluctuations. Therefore, the impact will have a moderate severity, throughout the duration of the mining operation.

3.3.6 Changes to surface topography

Source of the impact

Development of infrastructure and open pits.

Description of the impact

The infrastructure and residue deposits will alter the topography by adding features to the landscape. Topsoil removal and mining will unearth the natural topography. The impact will be definite if mining is approved and the operation continues.

3.3.7 Visual impacts

Source of the impact

The construction of mining infrastructure, open pits and dust.

Description of the impact

Visual impact of the mining infrastructure, open pit and visibility of dust.



3.3.8 Traffic

Source of the impact

The number of vehicles will increase with the mining in the area.

Description of the impact

Potential negative impacts on traffic safety and deterioration of the existing road networks.

3.3.9 Heritage resources

Source of the impact

The mining operations can destroy sites of cultural and heritage importance

Description of the impact

The deterioration or destruction of sites of cultural and heritage importance

3.3.10 Socio-economic

Source of the impact

The mining operation can create various job opportunities for local people. The mine can also damage the land capability and agricultural land use during mining.

Description of the impact

Loss of potential for the area; influx of workers to the area increases health risks and loitering (resulting in lack of security and safety); negative impact of employment loss during closure.

3.3.11 Interested and affected parties (IAPs)

Source of the impact

The setting up of a Mining operation for Aggregate, Barytes, Cobalt, Copper, Gold, Gravel, Iron Ore, Lead, Limestone, Molybdenum, Stone Aggregate Gravel, Pyrite, Sand(General), Silver, Sulphur, Sulphur In Pyrite, Tungsten and Zinc on the farm Eyerdop No. 58 in the Magisterial District of Prieska.

Description of the impact

Loss of trust and a good standing relationship between the IAPs and the mining company.

3.3.12 Land capability

Source of the impact



Aggregate, Barytes, Cobalt, Copper, Gold, Gravel, Iron Ore, Lead, Limestone, Molybdenum, Stone Aggregate Gravel, Pyrite, Sand (General), Silver, Sulphur, Sulphur in Pyrite, Tungsten and Zinc mining operation.

Description of the impact

Loss of land capability through topsoil removal, disturbances and loss of soil fertility during the mining operation.

3.3.13 Land use

Source of the impact

Aggregate, Barytes, Cobalt, Copper, Gold, Gravel, Iron Ore, Lead, Limestone, Molybdenum, Stone Aggregate Gravel, Pyrite, Sand (General), Silver, Sulphur, Sulphur in Pyrite, Tungsten and Zinc mining operation.

Description of the impact

Loss of land use due to poor placement of surface infrastructure and ineffective rehabilitation.

3,3.14 Ground water

Source of the impact

- Potential chemical spills during the mining operation
- Yellow fleet servicing and tire replacement workshop potential diesel and lubricant spills.
- Operating of the wash bay as well as silt trap and oil separator potential contaminated water and chemical spills.
- Yellow fleet parking area potential diesel and lubricant spills.
- Septic tank and soak-away systems potential infiltration of contaminants through soil substrata.

Description of the impact

Possible pollution of underground water sources. Construction of measures to prevent seepage into the groundwater by biological and engineering means. Implementation of the necessary management programs to ensure the integrity of ground water resources.

3.3.15 Surface water

Source of the impact

- Potential chemical spills due to mining operations.
- Yellow fleet servicing and tire replacement workshop potential diesel and lubricant spills.



- Operating of the wash bay as well as silt trap and oil separator potential contaminated water and chemical spills.
- Yellow fleet parking area potential diesel and lubricant spills.

Description of the impact

During the construction and operation of the mining operation, there is a possibility that equipment might leak oil, thus causing surface spillages. The storage of fuels on site might have an impact on surface water if the tanks that are available on site are not properly monitored and maintained to avoid leakages. Then there is the potential that contaminated soil can be carried through runoff to contaminate water resources and soil stockpiled for rehabilitation. Surface water pollution is therefore possible, but through mitigation it can be minimised. The impact will have moderate severity and effect on extent.

3.3.16 Disturbance, displacement and killing of fauna

Source of the impact

Vegetation clearing; increase in noise and vibration; human and vehicular movement on site resulting from the mining activities.

Description of the impact

The transformation of natural habitats due to mining and associated infrastructure will result in the loss of habitat that can affect individual species, and ecological processes. In turn this will result in the displacement of faunal species dependent upon such habitat. Increased noise and vibration due to mining activities will disturb and possibly displace birds and other wildlife. Fast moving vehicles take a heavy toll in the form of road kills of small mammals, birds, reptiles, amphibians and a large number of invertebrates.

3.3.17 Fauna Loss, damage and fragmentation of natural habitats

Source of the impact

Clearance of vegetation; mining activities.

Description of the impact

The construction of the mining and associated infrastructure will result in the loss of connectivity and fragmentation of natural habitat. Fragmentation of habitat will lead to the loss of migration corridors, in turn resulting in degeneration of the affected population's genetic make-up. This results in a subsequent loss of genetic variability between meta-populations occurring within the study site. Pockets of fragmented natural habitats hinder the growth and development of populations.

3.3.18 Encouragement of bush encroachment



Source of the impact

Clearing of vegetation; disturbances through mining activities.

Description of the impact

The possibility exists that bush encroaching species can multiply as a result of the disturbance interference in the natural ecosystem. While general clearing of the area and mining activities destroy natural vegetation, bush encroaching plants can increase due to their opportunistic nature in disturbed areas. If encroaching plants establish in disturbed areas, it may lower potential for future land use and decrease biodiversity. With proper mitigation, the impacts can be substantially reduced.

3.3.19 Proliferation of alien vegetation

Source of the impact

Clearing of vegetation; mining activities.

Description of the impact

The extent of alien invasive species in the area can increase as a result of the mining in the natural ecosystem. While general clearing of the area and mining activities destroy natural vegetation, invasive plants can increase due to their opportunistic nature in disturbed areas. If invasive plants establish in disturbed areas, it may cause an impact beyond the boundaries of the mining site. These alien invasive species are thus a threat to surrounding natural vegetation and can result in the decrease of biodiversity and ecological value of the area. Therefore, if alien invasive species are not controlled and managed, their propagation into new areas could have a high impact on the surrounding natural vegetation in the long term. With proper mitigation, the impacts can be substantially reduced.

3.3.20 Loss of flora with conservation concern

Source of the impact

Removal of listed or protected plant species; during the construction of roads, plant site, as well as other necessary infrastructure; the placement of stockpiles; and the clearing of vegetation for mining.

Description of the impact

It is possible that protected species will be destroyed during the mining operation.

3.3.21 Loss of, and disturbance to indigenous vegetation

Source of the impact

The construction of roads, plant site, as well as other necessary infrastructure; the placement of stockpiles; and the clearing of vegetation for mining, materials storage and topsoil stockpiles; vehicular movement.



Description of the impact

Construction and mining activities on site will reduce the natural habitat for ecological systems to continue their operation. It is not expected that the areas of high ecological function will rehabilitate following disturbance events. Vehicle traffic generates lots of dust which can reduce the growth success and seed dispersal of many small plant species.

3.3.22 Noise and vibration:

Source of the impact

Noise generated by the vehicles and mining equipment.

Description of the impact

Mining which increase continuous noise levels; the disruption of current ambient noise levels; and the disruption of sensitive receptors by means of increased noise and vibration. This is particularly relevant to IAPs that reside in close proximity to the mining site and mining location.

3.3.23 Land use:

Source of the impact

Mining for Aggregate, Barytes, Cobalt, Copper, Gold, Gravel, Iron Ore, Lead, Limestone, Molybdenum, Stone Aggregate Gravel, Pyrite, Sand (General), Silver, Sulphur, Sulphur in Pyrite, Tungsten and Zinc.

Description of the impact

Loss of economic function of disturbed area during mining activities and potential loss of land capability post mining (limited to the mining areas and processing plant).

3.4 Listed Activities applied for in terms of the National Environmental Management Act, 1998 Act 107 of 1998 (NEMA)

Table 1: Listed and Specified Activities

WASTE MANAGEMENT AUTHORISATION	(Indicate whether an authorisation is required in terms of the Waste Management Act).	(Mark with an X)					
APPLICABLE LISTING NOTICE	(GNR 544, GNR 545 or GNR 546)	4 - 4	GNR 325				
LISTED ACTIVITY	(Mark with an X where applicable or affected).		×				
Activity Ha or m ²			17 555,2978 hectares	(На).			
NAME OF ACTIVITY	(E.g. for prospecting – drill site, site camp, ablution facility, accommodation, equipment storage, sample storage, site office, access route, etc etc etc.	E.g. for mining – excavations, blasing, stockpiles, discard dumps or 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 etc.)	Activity 17 of Listing Notice 2	Any activity including the operation of that activity which requires a mining right as contemplated in section 22 of the Mineral and Petroleum Resources	Development Act, 2002 (Act No. 28 of 2002), including-	 associated infrastructure, structures and earthworks, directly related to the extraction of a mineral resource; or b) the primary processing of a mineral resource including winning, extraction, classifying, concentration, crushing, screening or washing; 	but excluding the secondary processing of a mineral resource, including the smelting, beneficiation, reduction, refining calcining or gasification of the mineral resource in which case activity 6 in this notice applies.



Activity 6 of Listing Notice 2	Heap leach phase 1	×	GNR 325	
The development of facilities or infrastructure for any	and 2			
process or activity which requires a permit or licence or	100m X 100m =			
amended permit or licence in terms of national or provincial	m²			
legislation governing the generation or release of emissions, pollution or effluent.				
Antivities of Finds Mating	44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44	,	**************************************	
Activity 15 of Listed Notice 2	On the total nectares	×	GNR 325	
"The clearance of an area of 20 hectares or more of indigenous vegetation, excluding where such clearance of	ซ ซ			
indigenous vegetation is required for-	were the plant area			
(i) The undertaking of a linear activity; or	workshop and office,			
(ii) Maintenance purposes undertaken in accordance with a maintenance management plan."	will be.			
Activity 30 of Listed Notice 1	To be determined by	×	GNR 327	
"Any process or activity identified in terms of section 53(1) of the National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004)."	the specialist ecological study			
Activity 25 of Listed Notice 1	Sewage facilities	×	GNR 327	
"The development and related operation of facilities or infrastructure for the treatment of effluent, wastewater or sewage with a daily throughput capacity of more than 2000 cubic metres but less than 15000 cubic metres."				
Activity 12 of Listing Notice 1	95	×	GNR 327	
The development of—	system: Stormwater dam			
	It is anticipated that the operation will establish			



(i) dams or weirs, where the dam or weir, including infracture and water surface area exceeds 100 square	stormwater control			
metres: or	separate clean and			
(ii) infrastructure or structures with a physical footprint of 100 square metres or more;	r on the r			
where such development occurs	size and			
		_		
(a) within a watercourse;	and stormwater dam will be directly affected			=
(b) in front of a development setback; or	by the topography of			
(c) if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse"	the area and the locality of the infrastructure.			
	During the			
Regulation GN R704, published on 4 June 1999 in terms of	ō			
the National Water Act (Use of water for mining and related activities)	provision was made for			
	an area of 45m x 35m			
	part of the p			
	to create different			
	dams for fresh water,			
	process water and			
	water from sewage			
	plants and oil separator			
	heen calculated).			
Activity 9 of Listing Notice 1		×	GNR 327	
The development of infrastructure expending 1000	drained from the pit			
	during periods of high			
storm water-	will be done as and			

(i) with an internal diameter of 0,36 metres or	when required using			
more; or	mobile diesel powered			
(ii) with a peak throughput of 120 litres per second	pumps. Water could be			
or more;	used for dust			
excluding where-	suppression or			
(a) such infrastructure is for bulk transportation of	processing water at the			
water or storm water or storm water drainage inside				
a road reserve or railway line reserve; or				
(b) Where such development will occur in an urban area.				
Activity 10 of Listing Notice 1	Water is expected to be	×	GNR 327	
The development and related operation of infracturoture	drained from the pit			
exceeding 1000 metres in length for the bulk transportation	during periods of high			
of sewage, effluent, process water, waste water, return	will be done as and			
water, industrial discharge or slimes-	when required using			
(i) With an internal diameter of 0,36 metres or	mobile diesel powered			
With a near throughout of 400 literan	used for dust			
(ii) while peak throughbut of 120 littles per second of more:	ession			
Excluding where –	processing water at the			
	processing plant.			
(a) Such infrastructure is for the bulk transportation of				
sewage, effluent, process water, waste water,				
return water, industrial discharge or slimes inside a	Spend pollution ponds			
road reserve or railway line reserve; or	-			
(b) Where such development will occur within an urban area.				
Activity 11 of Listing Notice 1	Proposed powerline 11	×	GNR 327	
The development of facilities or infrastructure for the transmission and distribution of electricity-	KVA with length 3.5 km			

	GNR 324
	×
	Fuel Storage facility (diesel tanks): It is anticipated that the operation will utilize 3 x 23 000 litre diesel tanks. These tanks must be placed in bund walls, with a capacity of 1.5 times the volume of the diesel tanks. A concrete floor must be established where the re-fuelling will take place. Re-fuel and lube station
 (i) Outside urban areas or industrial complexes with a capacity of more than 33 but less than 275 kilovolts; or Inside urban areas or industrial complexes with a capacity of 275 kilovolts or more; Excluding the development of bypass infrastructure for the transmission and distribution of electricity where such bypass infrastructure is – (a) Temporarily required to allow for maintenance or existing infrastructure; (b) 2 kilometres or shorter in length; (c) Within an existing transmission line servitude; and (d) Will be removed within 18 months of the commencement of development 	Activity 10 of Listing Notice 3 "The development and related operation of facilities or infrastructure for the storage, or storage and handling of a dangerous good, where such storage good, where such storage occurs in containers with a combined capacity of 30 but not exceeding 80 cubic meters."



Activity 24(ii) of Listing Notice 1	Roads (both access X	GNR 327	
"The development of a road – (ii) with a reserve wider than 13,5 meters, or where no reserve exists where the road is	and haulage road on the mine site):		
wider than 8 meters."	Although it is		
Activity 56(ii) of Listing Notice 1	recommended that the operation utilize		
"The widening of a road by more than 6 meters, or the lengthening of a road by more than 1 kilometer – (ii) where	existing roads as far as possible, it is		
no reserve exists, where the existing road is wider than 8 meters"	anticipated that the mining operation will		
Activity 27(iv) of Listing Notice 2	create an additional 3- 5 km of roads, with a		
"The development of a road	width of 20 meter. The width of the road is	GNR 325	
(iv) catering for more than one lane of traffic in both directions:"	based on an operating width of the haul trucks		
	of 5 meter. Best		
	and		
	guideline from the		
	4 x operating width of		
	haul truck, in this case		
	20-meter-wide roads.		
NEMWA: Category B	Waste dump ±6,75ha	NEMWA	×
(GNR 633): Activity 15		CATEGORY B	
"Residue stockpiles or residue deposits"		GNR 633	
(11) The establishment or reclamation of a residue stockpile or residue deposit resulting from activities which require a mining right, exploration right or production right in terms of			

the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002).			
OTHER ACTIVITIES (Associated infrastructure not considered to be listed activities)			
Workshop and Wash bay Facilities	±600m²		
Water distribution pipeline	HDPE Pipes		
Ablution Facilities	±25m²	NOT LISTED	
Topsoil Stockpiles	±2500m²		
Overburden Stockpiles	±2500m²		
Water tanks: It is anticipated that the operation will establish 2 \times 10 000 litre water tanks with purifiers for potable water.	3m x 3m = 9m² each		
Explosive Magazine:	50m x 40m = 2000m²	GNR325: Activity 17	
explosive products namely 200 case detonator ad accessories magazine (3 meter x 6 meter)	Inner radius area = 3.14 x (radius squared) = 25 434 m²	(Keep in consideration Mine Health and Safety Act,	

 200 case explosives magazine (3 meter x 6 meter) 		29 of	29 of 1996 and	
The magazine area will be fenced to comply with the guidelines set out by the Chief inspector of Explosives (CIE). The fence must be further than 10 meter away from the magazine.	Outer radius area = 3.14 x (radius squared) = 101 736 m² (10.1736ha)	regule specif Sectic and R	regulations specifically Section 23.4(o) and Regulation	
The CIE determines the safety radius necessary, but the typical approved radiuses have been		Explos 15 of	Explosives Act (5 of 2003).	
90 meter for the inner radius				
• 180 for the outer radius				
No structures are allowed in the area contained by the inner radius and only structures approved by the CIE, for example a guard house, will be allowed in the area contained in by the outer radius.				
The construction of the magazines and the safety and security measures for the magazine area are regulated by the Explosives Act.				

3.5 **Decommissioning Phase/ Closure Period:**

The decommissioning phase will only commence once all the mining is completed. During decommissioning all erected structures, e.g. sewage facilities, fences on demarcated areas, equipment and access roads on permission of the surface owners will be rehabilitated to their previous state. Rehabilitation will be done concurrently with the mining and only limited outstanding work will be necessary when mining is ceased.

4 CONCLUSION

It is clear that the destruction of the natural habitat in the mining area is inevitable and that there would be both positive and negative impacts related to the mining activities. The significance of these impacts will however be determined by the success of the mitigation measures that will be implemented by mine management in line with the Approved Environmental Management Programme.

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