

BACKGROUND INFORMATION DOCUMENT

**FOR THE ESTABLISHMENT OF MASHWENING IRON ORE MINE, DISTRICT OF KURUMAN,
NORTHERN CAPE**

**APPLICATION FOR ENVIRONMENTAL AUTHORISATION IN TERMS OF NATIONAL ENVIRONMENTAL
MANAGEMENT ACT**

**COMPILATION OF ENVIRONMENTAL MANAGEMENT PROHGRAMME IN TERMS OF THE MINERAL
AND PETROLEUM DEVELOPMENT ACT**

APPLICATION FOR INTEGRATED WATER USE LICENCE IN TERMS OF THE NATIONAL WATER ACT

SEPTEMBER 2013

DMR REFERENCE NUMBER: NC 30//5/1/2/2/10037 MR
DENC REFERENCE NUMBER: NC/EIA/12/JTG/GAE/KAT2/2013

1. INTRODUCTION

Wide Investments 100 (Pty) Ltd, herein after referred to as Wide Investments, has applied to the Department of Mineral Resources (DMR) for a Mining Right with respect to Iron ore and Manganese ore on the Remaining Portion of the farm Mashwening 557, Magisterial District of Kuruman in the Northern Cape Province. The Department of Mineral Resources has, on 18 September 2013, accepted the application and requested Wide Investments to give effect to section 22(4) of the Mineral and Petroleum Resources Development Act. No 28 of 2002 (MPRDA)

Whereas the EMP will be submitted in line with the MPRDA, simultaneously and, indeed in parallel an EIA will be submitted to the Northern Cape Department of Environment and Nature Conservation (DENC) as required in terms of the Environmental Impact Assessment Regulations published in the Government Gazette of 18 June 2010 under Section 24 of the National Environmental Management Act (Act no 107 of 1998) (NEMA).

The proposed mining operations will also require a water use licence in terms of National Water Act No. 36 of 1998.

The following reports will be submitted to the relevant competent authorities:

- (i) Scoping Report and Environmental Management Programme including supporting documents and technical reports to the DMR and ;
- (ii) Scoping Report and Environmental Impact Report including supporting documents and technical reports to the (DENC);
- (iii) Integrated water use licence to the Department of Water Affairs (DWA), Northern Cape Province.

The applicant, Wide Investments, has appointed Jomela Consulting as the independent Environmental Assessment Practitioner to undertake the Section 24 application in terms of NEMA (as amended) as well as the requirements of the MPRDA.

The following are competent authorities with respect to this application:

AUTHORITY	APPLICABLE LEGISLATION	COMPETENCE
Northern Cape Department of Environment and Nature Conservation (DENC).	Section 24 of National Environmental Management Act (Government Gazette of 18 June 2010)	The decision making authority for the activities requiring environmental authorisation
Department of Mineral Resources (DMR)	Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) MPRDA, with specific reference to sections 22, 2 and 39.	Decision making authority on activities related to mining
Department of Water Affairs (DWA)	National Water Act, 1998 (Act No. 36 of 1998)	Decision making authority on matters related to water resources

2. PROJECT LOCALITY

The site is located within the District Municipality of John Taolo Gaetsewe in the Gamagara Local Municipality. The nearest towns are Kathu and Kuruman. The project is located approximately 20km south-east of the town of Kathu, to the east of the N14 National Road.

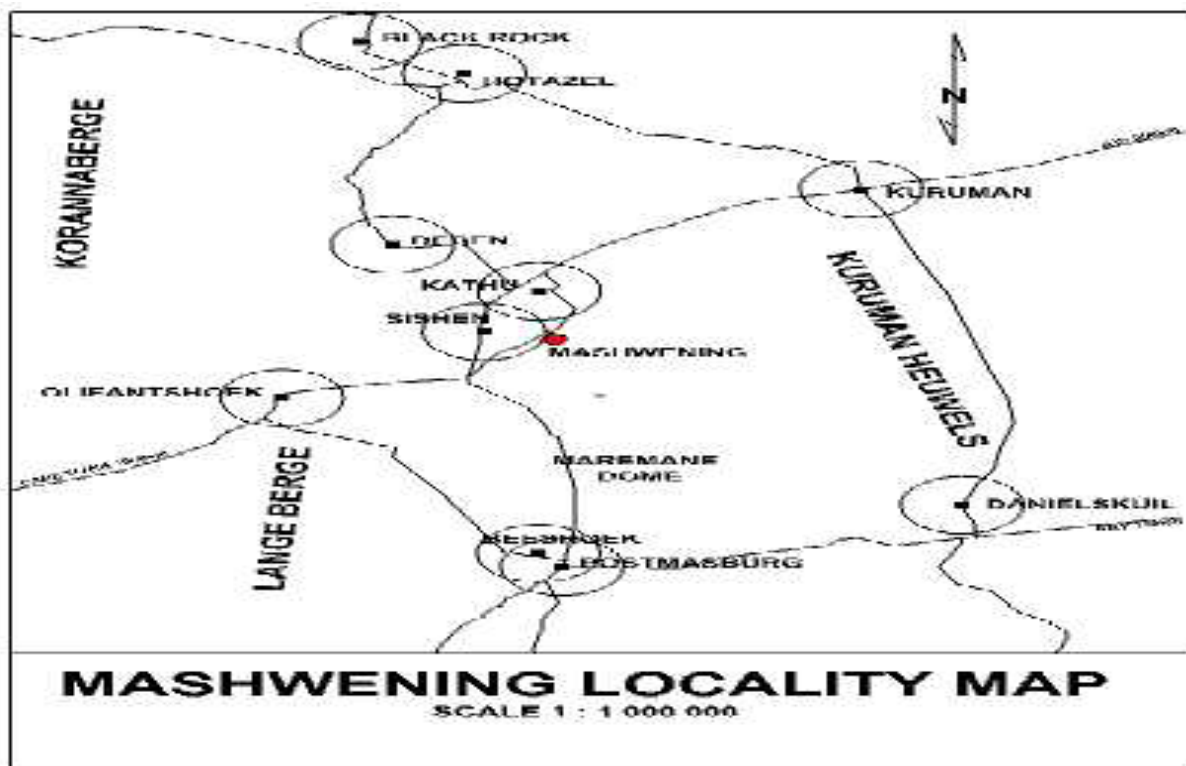
The proposed Mashwening mine is located approximately 10 km to the east of the N14 National Road. The site is accessible by a well maintained gravel road, from N14, passing through the property will provide as the main access to the mine. This gravel road is further split into two separate roads inside the property, providing points for establishment of secondary roads to access

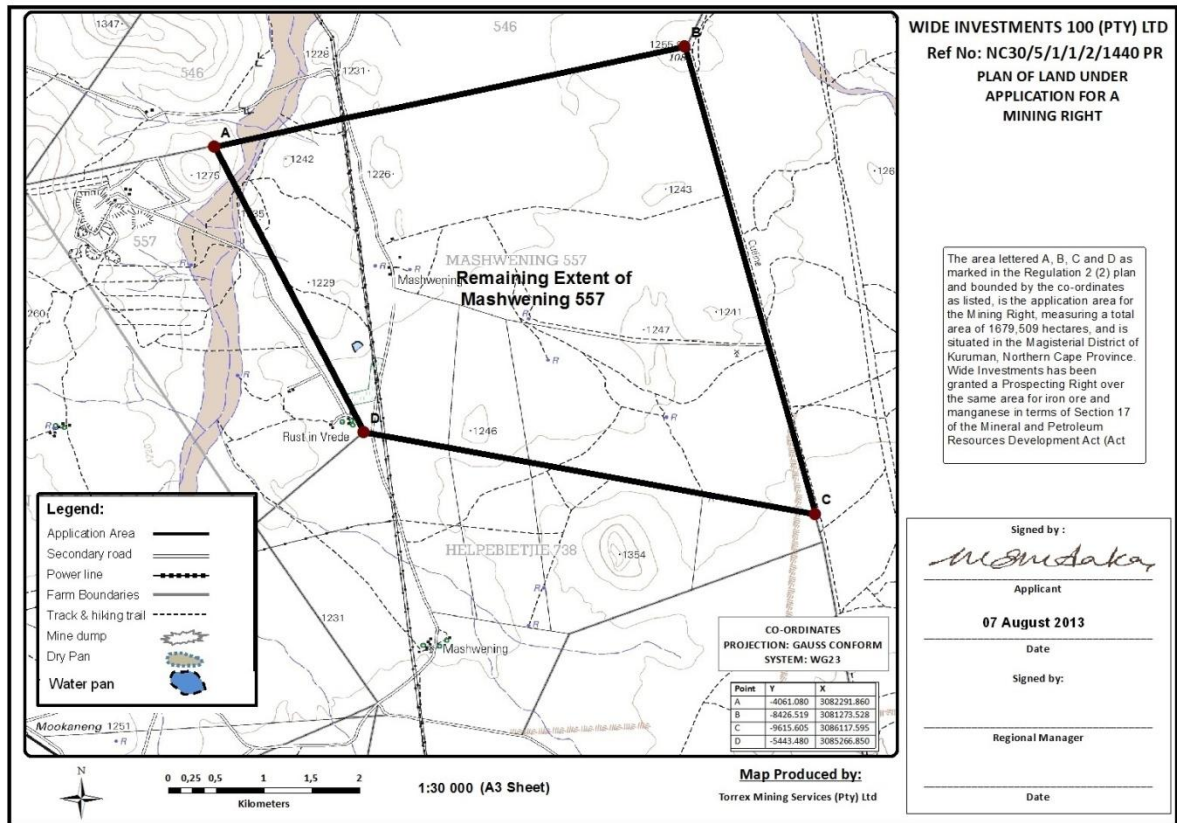
the mining area. The mining area will be accessed through temporary roads that will link to the two main gravel roads found inside the property (see attached locality map).

The farm is located approximately 15 km toward the south-east of the Sishen Iron Ore Mine and easily accessible via the Kathu-Postmasburg bitumen road. The farm is located on the eastern belt toward the northern edge of the Maremane dome, close to the junction of the two belts.

The farm is bounded toward the north-west by the farm Demaneng 546 and toward the west by the farm Rust En Vrede (Portion 1 of Mashwening 557) whilst the southern boundary is shared with the farm Helpebetjie 738.

Farm	Sub-Division	Size	Surface Rights Holder	Mineral Rights Holder	Title Deed No.
Mashwening 557	Remaining Extent	1679.5094	Sishen Iron Ore Mining Company (Pty) Ltd	Government of RSA	T3280/2001





3. PURPOSE OF THIS DOCUMENT

This document provides interested and or affected parties (I&APs) with background information on the proposed project, its potential impacts, the application and EIA/public participation process. It also outlines the manner in which I&APs can become involved in the project, receive information and raise issues that may be of interest and/or concern to them.

The development of the impact assessment process involves technical and scientific investigations related to the potential impacts of the proposed project. It is therefore essential that I&APs, through the public participation process, become actively involved in the project's environmental assessment process project in order to share information and give input that will be useful in assisting the relevant authorities in decision-making as far as this project is concerned.

4. OVERVIEW OF THE PROPOSED PROJECT

The affected portion is the Remainder of the farm Mashwening 557, however the area required for mining is approximately 320 hectares whereas the area required for infrastructure, roads, servitudes, etc. is about 53 hectares.

Wide Investments is the holder of Prospecting Right reference number 30/5/1/1/2/1140PR over the above-mentioned property in respect of which the company has applied for a mining right.

The farm Mashwening was previously prospected for manganese with a number of historical sampling pits found in parts of the 1679 hectare farm area.

The following is the summary of primary mining and processing activities that are expected to be undertaken by the project proponent:

- i) Establishment and Earthworks
 - Establish machinery
 - Construction of haulage roads
 - Pre-stripping to remove vegetation and clear the pit area
 - stripping of topsoil and overburden to expose the ore
- ii) Installation of drip irrigation infrastructure
- iii) Blasting and excavating of ore
- iv) Loading and hauling of ore
- v) Stockpiling and conveying
- vi) Crushing and screening
- vii) Jigging
- viii) Disposal of waste rock and material in waste rock dump and tailings facility
- ix) Concurrent mine rehabilitation
- x) Mine decommissioning and closure

Infrastructure

- Access Roads

The mining area will be accessed through temporary roads that will link to the two main gravel roads found inside the property.

- Power supply

There is an existing high tension Eskom overhead power line that runs through the property. A dedicated feeder will be provided by constructing a sub-station on the mine and link this to the high tension overhead power line that passes through the mine property.

- Water Supply

Water requirements on the mine will include the supply of water for the screens; processing plant; general office use; cleaning of equipment; watering to allay dust in the plant; workshops and hauling roads. Potable water will also be needed for human consumption and change house facilities. The mine will source its water supply from the Vaal Gamagara water scheme which is under the management of Sedibeng Water. A pipe connection will be used to direct the water supply to the mine, where it will be stored in a mounted tank. Other sources of water will include water from a borehole; ground water seepage into the mining pits and storm water in the event of heavy rains. Any excess water will be channelled into settling ponds and used as make-up water in the event of losses associated with plant processing, discard streams and evaporation.

- Office, processing facilities and workshops

Due to the relatively short lifespan of the mine, pre-fabricated buildings will be erected to function as plant and pit offices, change houses, laboratories, first aid rooms, and warehousing. An existing building on the farm has been identified for renovation and use as main mine office.

Mining Method

The planned mining method is open cast mining which will commence by pre-stripping to remove vegetation and clear the pit area; followed by the removal of topsoil or overburden to expose the ore. Ore extraction will commence by exploitation of the detrital ore and in the later years the hard ore. The detrital ore is soft digging using excavators, requiring no drilling and blasting. The planned open cast mining will utilize diesel powered equipment. The topsoil is stored in a designated area for re-use during rehabilitation of the mining area. Once soft ore is exposed, an excavator is used to dig and load ore on to trucks and the ore transported to a crusher and in-infield screening facilities for processing.

After the depletion of detrital ore, and loose overburden having been removed to expose the hard ore and waste, mining benches will be created by drilling blast holes of between 150 and 160 mm in diameter to a depth of 6 metres. These blast holes will be charged with explosives and blasted to fragment the ore and waste which will be loaded using excavators on to haul trucks for transportation to the crusher and in-field screening units. The blasting operations will be done on 6

metre high benches, whilst loading operations will be done on 3 metre high benches as a cycle. These bench heights will allow minimum contamination and maximum recovery of ore during the blasting and cleaning mining cycles. The cycle of blasting and loading activities being carried out on the specified bench heights will be achieved by separating the blasted rock into two platforms.

The processing plant is designed to operate at 12 hours per day on a two-shift basis (day and night shift), or 24 hours a day for seven days a week.

The mine development activities will commence by establishing the required mining and processing infrastructure to support the proposed Life of Mine (LOM) production profile of 1mtpa (at steady state) of Run of Mine material (ROM) for 15 (fifteen) years.

The total estimated resource to be mined is 7.8 million tonnes of ore in the ground, but based on a plant production capacity of 40 000 tonnes of product per month, or 480 000 tonnes of product per annum, it will require approximately 15 years of life of mine to exploit the total resource at such a rate.

The iron ore produced from the mine will be transported by trucks and offloaded at the existing load-out station at Sishen. From this point, the iron ore will be loaded on to the trains operated by Transnet Freight Rail (TFR) and transported to the port of Saldanha bay.

It is estimated that the mine will employ 106 people from build up to steady state.

5. OVERVIEW OF THE AUTHIRISATION APPLICATION PROCESS

In terms of the MPRDA, section 22(4) requires that the applicant submit a Scoping Report and conduct an Environmental Impact Assessment and submit an Environmental Management Programme for approval by the DMR.

In terms of the National Environmental Management Act (NEMA as amended) and the EIA regulations, 2010, prior to the commencement of activities on site, an environmental authorisation is required as the project, will potentially trigger listed the following activities that required environmental authorisation:

Listing Notice	Activity No.	Description	Applicability to Project
GNR 544	Activity 9	The construction of facilities or infrastructure exceeding 1000 metres in	The tailings storage facility with its associated infrastructure and

		length for the bulk transportation of water, sewage or storm water- (i) with an internal diameter of 0.36 metres or more; or (ii) with a peak throughput of 120 litres per second or more, excluding where: a. such facilities or infrastructure are for bulk transportation of water, sewage or storm water or storm water drainage inside a road reserve.	the storm water control system will require pipelines. A pipeline for the supply of water from the Vaal Gamagara Scheme
GNR 544	Activity 10	The construction of facilities or infrastructure for the transmission and distribution of electricity (i) outside urban areas or industrial complexes with a capacity of more than 33 but less than 275 kilovolts; or (ii) inside urban areas or industrial complexes with a capacity of 275 kilovolts or more.	A feeder will be provided by constructing a sub-station on the mine and link this to the high tension overhead power line that passes through the mine property.
GNR 544	Activity 12	The construction of facilities or infrastructure for the off-stream storage of water, including dams and reservoirs, with a combined capacity of 50 000 cubic metres or more, unless such storage falls within the ambit of activity 19 of Notice 545 of 2010.	Storm water and return water dams will be constructed.
GNR 544	Activity 13	The construction of facilities or infrastructure for the storage, or for the storage and handling, of a dangerous good, where such storage occurs in containers with a combined capacity of 80 but not exceeding 500 cubic metres;	Hydrocarbons storage facilities (diesel and petrol tanks) will be constructed.
GNR 544	Activity 22	The construction of a road, outside urban areas, (ii) where no reserve exists where the road is wider than 8 metres.	The construction of access roads and haulage roads on site. Existing roads will be upgraded
GNR 545	Activity 15	Physical alteration of undeveloped, vacant or derelict land for residential, retail, commercial, recreational, industrial or institutional use where the total area to be transformed is 20 hectares or more;	The area to be affected will exceed 20ha. The area required for mining 320 hectares, whereas the area required for infrastructure, roads, servitudes, etc. is about 53 hectares.
GNR 545	Activity 19	The construction of a dam, where the highest part of the dam wall, as measured from the outside toe of the wall to the highest part of the wall, is 5 metres or higher or where the high-water mark of the dam covers an area of 10 hectares or more	A tailings storage facility (slimes dam) will be required, including storm water control dams
GNR 545	Activity 20	Any activity which requires a mining right or renewal thereof as contemplated in sections 22 and 24 respectively of the	A mining right application was lodged with the DMR in terms of section 22 of the MPRDA and

		Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002).	has been accepted. Reference no. NC 30/5/1/2/2/10037 MR
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The Application Process including Public Participation can be summarised in the following phases:

5.1 Submission of Application

(a) Application to the DMR for a mining right

On 14 August 2013, Wide Investments lodged an application for Mining Right with the DMR in the Kimberley regional office.

(b) Application to the DENC for authorisation

On 09 September 2013 an application for Environmental Authorisation was submitted to DENC in Kimberley.

5.2 Acceptance/Acknowledgement of Application

(a) acceptance of application by DMR

On 18 September the DMR accepted the mining right application.

(b) Acknowledgement of application by the DENC

On September 2013, DENC acknowledged the application for Environmental Authorisation

5.3 Notification to I&APs

A database of I&APs will be developed. Notices will be placed in strategic places and where addresses are available written correspondence will be sent out to inform I&APs of the proposed project. Emails and telephonic media will also be used to convey the message to I&APs. Adverts will be placed on a local as well as a regional newspaper. A 14 day period will be provided within which I&APs will be expected to register their interest in the project and raise issues of concern.

5.4 Compilation of the Scoping Report

A Draft Scoping Report (DSR) will be compiled to identify activities and the process to be followed for the application. Copies of the Draft Report and project information will be distributed to all registered I&APs and made available at strategic places (e.g. library) and/or through available media.

All I&APs will be provided with a 14 days period within which to raise issues of concern with regards to the Draft Scoping Report.

Inputs will be incorporated into the Final Scoping Report (FSR) and submitted to the authorities for their consideration. The Scoping Report will provide a Plan of Study for Scoping (the design of environmental impact assessment).

5.5 Compile Draft and Final EIA/EMP Reports

Once authorities have considered the Scoping Report and given a go-ahead thereon, a process of developing the Environmental Impact Assessment report unfolds which culminates in a Draft Environmental Assessment Report (EIR) and draft Environmental Management Programme. Specialist investigations are also commissioned which will provide scientific and technical input into the EIA process. As part of the public participation process, I&APs are allowed 30 days to review the draft documents and provide comments.

Once comments have been received from I&APs at the end of the review period, issues raised are addressed and inputs incorporated into the Final EIR and EMP. The Final EIR and Final EIA&EMP document are submitted to the DENC and the DMR respectively for their decision making. I&APs will be notified of the submission to the DENC.

5.6 Notification of the Outcome of the Decision-making Process

The competent authority/ies will issue a Record of Decision (RoD) on the submitted documents. The registered I&APs will be notified in writing of the outcome of the decision-making process. This is to ensure that I&APs have the opportunity to appeal such decision if they are not satisfied with such decision.

6. POTENTIAL IMPACTS OF THE PROJECT

Potential Impacts may include:

- Impact on surface and ground water quality and quantity
- Dust Pollution
- Noise impacts

- Alteration of topography
- Visual impacts
- Impact on heritage / archaeological and culturally features
- Impact on soil and land capability
- Destruction and loss of biodiversity
- Increase traffic volumes and impact on roads
- Employment opportunities
- Stimulation of local and regional economy
- Impact of socio-economic structure of the local communities
- Sterilization of mineral resources

7. REGISTRATION AS INTERESTED AND AFFECTED PARTY TO PARTICIPATE IN THIS PROCESS

It is a requirement in terms of regulation 55 (1) (b) of Government Notice R 543 that interested and affected parties are to request in writing that their names be placed on the register of interested and affected parties. Should you wish to register as an interested and affected part or have any comments on the proposed project, kindly complete the registration and response form below and provide comments, concerns or inputs regarding any potential environmental, cultural, socio-economic aspects that you deem necessary for consideration about the proposed project. Clearly state the nature of interest that you may have with regards to this matter. By registering on the project database you will be notified as and when information on the project is available. If your comments are not received from you within 30 days of receipt of this notice, it will be assumed that you do not have any issues with regard to the project.

Please forward your detailed response and full name, address and contact numbers in writing (via fax or email) to the attention of Mr. Cecil Khosa of Jomela Consulting (Pty) Ltd

Contact Details: P.O. Box 415, Celtis Ridge, 0130

Tel/Mobile: (+27) 79 885 9666

Fax: (+27) 86 626 4839

Email: cecilkhosa@jomela.co.za

As interested and affected party you are kindly requested to complete the registration and response form and give any comment/concerns or input with regard to the environment that you may have, on the proposed development. If we do not receive any comment from you within 30 days of receipt of this notice, it will be accepted that you do not have any objections/comments with regard to the project.

EIA/EMP I&AP REGISTRATION AND RESPONSE FORM

PROJECT NAME: MASHWENING IRON ORE MINE

DMR REFERENCE NUMBER: NC 30//5/1/2/2/10037 MR

DENC REFERENCE NUMBER: NC/EIA/12/JTG/GAE/KAT2/2013

REGISTRATION PERSONAL/ORGANISATIONAL DETAILS		
Name		
Organisation		
Postal Address		
Telephone		
Fax		
Email		
RESPONSE		
I would like to attend public meeting	YES	NO
Date and venue of public meeting to be provided in due course		
Concerns/ Suggestions/ Comments		
Signature of I&AP		
Date		

Note: if the form is insufficient, please add more pages of your own.