

Background Information Document (BID)

ENVIRONMENTAL IMPACT ASSESSMENT (EIA) PROCESS, WATER USE LICENSE (WULA) AND WASTE MANAGEMENT LICENSE (WML) APPLICATION FOR THE PROPOSED DEVELOPMENT OF THE "GELUK MINE" AND ASSOCIATED INFRASTRUCTURE AT MAGNET HEIGHTS, WEST OF STEELPOORT IN LIMPOPO PROVINCE (DMR Ref. LP30/5/1/2/3/2/1/10107EM)

July 2015

1. Background to Project

Rakhoma Mining Resources Pty Ltd, herein referred to as Rakhoma has **applied** to the Department of Mineral Resources (DMR) for a **Mining Right** over an area of 3165.32 hectares which consist of the farms Geluk 512KS, Geluk Oos 513KS and the farm Ironstone 847KS at Magnet Heights west of Steelport in the Sekhukhune District of the Limpopo Province, South Africa. Refer to Figure 1 on page 2.

Rakhoma proposes to establish an Iron and Vanadium Ore open cast mine to be referred to as the "**Geluk Mine**".

Part of the process for obtaining mineral rights for the mining operation, the applicant is **required to obtain Environmental Authorisation (EA)** in line with the Environmental Impact Assessment (EIA) Regulations published in Government Notice R982 of 4 December 2014 under Section 24 (5) of the National Environmental Management Act No. 107 of 1998 (NEMA).

The project will, besides EA, require a Water Use License Application (**WULA**) under the provisions of the National Water Act No. 36 of 1998 (NWA). It furthermore requires a Waste Management License (**WML**) under the provisions of the National Environmental Management: Waste Act (Act 59/2008) (NEMWA) as amended. An application for EA and WML was lodged with DMR on 16 July 2015. DMR Ref LP30/5/1/2/3/2/1/10107 EM.

DMR has accepted the application on 24 July 2015 and stipulated that a Scoping Report must be submitted by 31 August 2015 along with proof of submission of WULA to the Department of Water & Sanitation (DWS).

The South African Heritage Resources Agency, and Limpopo Heritage Resources Agency will also be notified of the proposed project in terms of the South African National Heritage Resources Act (SAHRA), 1999 (Act 25 of 1999).

Naledzi Group Pty Ltd has been appointed as the independent Environmental Assessment Practitioner (**EAP**), to undertake and manage the above mentioned applications. An integrated approach will be followed for to obtain the required authorisation and licenses.

Background Information Document

Scoping & EIA Process for Mining Right and establishment of "Geluk Mine", Magnet Heights, Limpopo

Invitation to register as an Interested and Affected Party and provide comments

Purpose of this Document

- Provide background information to landowners and interested and affected parties (I&AP's) on the proposed mining operations
- Provide you with an opportunity to receive information, comment and raise issues regarding the environmental authorisation process.

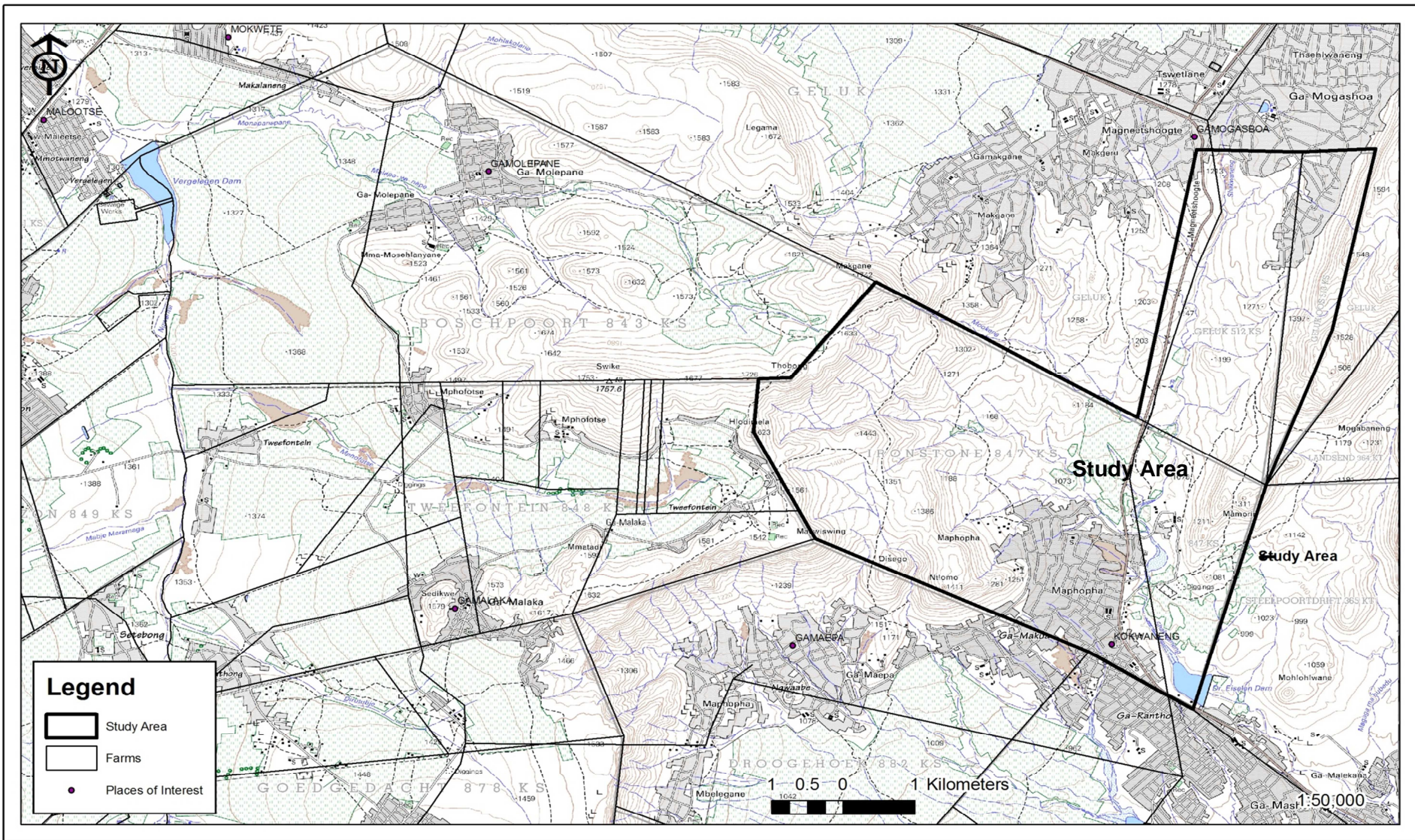
You can achieve it by:

- Registering as an I&AP during the public participation process
- Giving comments, raising concerns and or issues about the project
- **Complete the Comment & Response Sheet at the end of the BID, this allows I&APs to comment on the project. Send the form back to us on or before 20 August 2015. The contact details are provided**

Public Participation Office and Comments:

Marissa Botha / Desmond Musetsho
Naledzi Group Pty Ltd
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Polokwane, 0700
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Project:
Study Area

Study site centre coordinates:
Latitude: -24.842120°
Longitude: 29.965776°



Olifants Catchment Area
Drainage region - B51H

Figure: Site Orientation Map	No. 1
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2. Application for EA

The application is subject to Scoping and EIA Process to the NEMA EIA Regulations of 2014. The process comprises two phases. The Scoping is the initial phase and the Impact Assessment phase the concluding stage. The following reports will be submitted to the relevant competent authorities:

- Scoping, EIR and EMPR including technical reports to DMR-Limpopo
- WML and supporting documents to DMR;
- Integrated WULA and supporting documents to Department of Water and Sanitation (DWS), Limpopo Province

The first environmental report to be produced is the Scoping Report as per DMR's stipulations. It is however not possible to produce a complete Scoping Report based on on-site studies undertaken by specialists in the environmental sciences within the limited timeframe provided by DMR. A "draft" Scoping Report based on desktop analysis and a literature review will be prepared for submission to DMR on 31 August 2015.

The required specialist studies will be completed in the meantime, after which the draft Scoping Report will be updated and then made available for public comment. Thereafter the issues raised by Interested and Affected Parties (I&APs) will be incorporated in the Scoping Report and submitted to DMR.

The Impact Phase will commence after submission of the Scoping Report to DMR, after which the draft EIR and EMPR will be made available for public review.

3. Background Information Document

This document provides interested and or affected parties (I&APs) with background information on the proposed project, its potential impacts, and 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.

The response sheet at the end of this document allows I&APs to comment and provide their inputs on the proposed project.

The PPP is being conducted in accordance with Chapter 6 of NEMA as amended and EIA Regulations of 2014 in support of the integrated EIA, WML and WUL authorization process.

4. Roles of I&APs

Communities, neighbours, government representatives, stakeholders such as community leaders, non-governmental organisations (NGO) are being invited to participate in the EIA process by means of published advertisements, site notices and written correspondence. I&APs are invited to assist in:

- Identify issues of concern to be investigated, as well as possible impacts of the project on the natural & social environment;
- Suggest alternative means in which to mitigate possible negative impacts and enhance positive impacts.

5. Project Description

The proposed Geluk Mine is to be located at Magnet Heights some 11km south east of Jane Furse Township and regionally some 20km west of Steelpoort.

The Mining Right area is 3165.32 hectares. Rakhoma is proposing to extract iron ore and vanadium ore during its mining operations from this area. It is to establish a box-cut/ open cast ore mine producing 240 000 tons per annum of ore in its first 5 years and a rump up to 700 000 tons per annum by year 6. The expected life of mine is 30 years.

The surface mining operation will comprise strip mining, and rehabilitation. The process will involve drilling and blasting in designated strips (20m wide); where after ore and waste rock would be loaded by means of an excavator onto dump trucks for transport to the crusher plant or stockpile. Waste material will be stockpiled separately from topsoil, until the stage of rollover is reached where waste is dumped back in the pit/mined areas where mining has been completed and rehabilitation is to take place.

The rehabilitation process will comprise the reshaping and re-vegetation of the land to restore it to a stable condition with a land-use that is appropriate for the particular location. This rehabilitation will be conducted progressively during the mining operations.

Toe trenches would be created and silt traps built to stop run-off water running into water courses and rivers.

The ore will be sold as a raw product to Vanchem Vanadium Products Pty Ltd.

The run of mine will be crushed and screened before being transported to the Vanchem Vanadium Products in Witbank (Emalahleni). All the vanadium-bearing titaniferous magnetite ore which has been crushed and screened on site will be sent Vanchem's processing plants at Emalahleni. Thus processing of the product is undertaken offsite.

The following infrastructure will be required:

- Run of Mine and product Stockpile (5625 m²) (Refer to Figure 2)
- Weighbridge
- Roads (5 hectares)
- Vehicle and loading bay (8000 m²)
- Crushing and Screening plant (Figure 3)
- Offices and workshops (2100 m²)



Figure 2 – Typical Iron Ore stockpile



Figure 3 – Typical Crusher and Screening Plant



Figure 4: Box cut surface mining

6. Project Objective

The commodity produced from the mining operations is Vanadium-bearing titaniferous magnetite which is a raw ore product.

The raw ore is sold and shipped to Vanchem Vanadium Products (Pty) Ltd. Vanchem will process the provided ore and make the following products: Vanadium Peroxide; Vanadium Trioxide; Ferrovandium and Vanadium chemicals.

7. Potential Impacts

A water course extends north-south through the study site lying just to the east of the road to Magnet Heights. This water course marks the lowest lying area, with the topography rapidly increasing into a mountainous area on the eastern side of Geluk. On the western end of Ironstone the property also extends into a mountainous region. The study site is populated over the southern and northern portions but the central part of the farm Geluk remains clear of dwellings.

Lower laying areas are also characterised by historic cultivation.

There are a number of environmental impacts that need to be addressed as part of the EIA process, which include:

- Visual impact
- Noise and vibration impact
- Air Quality Impact (Dust generated due to mining operations);
- Impact on Heritage and Cultural Resources
- Impact on Fauna and Flora;
- Socio-economic impact;
- Soil and Land use impact;
- Traffic impact and impact on local road usage;
- Impact on surface and ground water

Construction, operation, closure and subsequent rehabilitation at the end of life of the mine will be undertaken in accordance with an audible EMPR as approved by DMR and in compliance with all applicable legislation. The rehabilitation process will be designed to restore the affected area of land to an end use agreed to by interested and affected parties and the relevant authorities.

8. Legislative Requirements

APPLICATION FOR ENVIRONMENTAL AUTHORISATION

In terms of EIA Regulations published in Government Notice R982, R983, R984 and R985 of 4 December 2014 under Section 24 (5) of the National Environmental Management Act No. 107 of 1998 (NEMA) the application for a Mining Right is subject to an Application for Environmental Authorisation. Government Notice R983, R984 and R985 schedules listed activities which require environmental authorisation. The proposed mining operation triggers an activity under GNR 984 which is subject to a Scoping and EIA process.

GNR 984: Activity 17

“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, 28/2002, including such infrastructure, structures and earthworks, directly related to the extraction of a mineral resource, including activities for which an exemption has been issued in terms of Section 106 of MPRD Act 28/2002”

Rakhoma is required to undertake an EIA process and submit a Scoping Report and EIA/EMPr, which describe the potential environmental impacts of the proposed open cast mine, how such impacts will be managed and how the disturbed area will be managed.

**WASTE MANAGEMENT LICENSE APPLICATION
- IN TERMS OF NATIONAL ENVIRONMENTAL
MANAGEMENT: WASTE ACT 59/2008**

A Waste Management License (WML) under the provisions of the National Environmental Management: Waste Act (Act 59/2008) (NEMWA) as amended is required as part of the application for environmental process. An integrated application for EA and a WML has been submitted to DMR.

Establishment of residue stockpiles or residue deposits require a WML in terms of List of waste management activities published under Government Notice R921 of 29 November 2013, as amended by Government Notice R332 of 2 May 2014 and as amended by GNR633 of 24 July 2015 published under Section 19 of NEMWA. GNR 633 inserts residue stockpiles as a Category B activity which requires a WML and is subject to a Scoping and EIA process. It is inserted as:

Activity 11 – “The establishment or reclamation of a residue stockpile or residue deposit resulting from activities which require a mining right in terms of the MPRDA (Act 28 of 2002).”

**WATER USE LICENSE APPLICATION
- IN TERMS OF THE NATIONAL WATER ACT
36/1998**

A Water Use License Application (WULA) under the provisions of the National Water Act No. 36 of 1998 (NWA) is required for the mining operations. WULA will be applied for and submitted to the Department of Water and Sanitation: Lydenburg (Mpumalanga Region) - Olifants Water Management Catchment Agency.

Water use is defined in terms of Section 21 of the NWA. There are 11 water uses, which must be authorised. It is anticipated that Rakhoma will require water for industrial and potable use. There is drainage line from north to south bisecting the proposed mining right area and associated tributaries and wetlands. The development of the mine would therefore be within 500m of a wetland.

An integrated WULA application will be followed for the following water uses:

- Section 21(a): taking water from a water resource (water will be sourced via a borehole);
- Section 21 (c) - Impeding or diverting the flow of water in a watercourse (The mine operation will take place within 500m of a wetland)
- Section 21 (i) - altering the bed, banks, course or characteristics of a watercourse (wetlands on mining area, operation to take place within 500m);

Other required Section 21 water uses will be detailed in the Scoping Report for public review. The following are competent authorities with respect to this application:

AUTHORITY	LEGISLATION	COMPETENCE
Department of Mineral Resources (DMR)	EIA Regulations 2014 under Section 24 of NEMA (GNR. 982) Regulations 21-24, 40-44; EIA Regulations	Decision making authority for mining related activities which require environmental authorisations
	Section 19 of NEM:WA 59/2008 as inserted by 2014 amendment	Decision making authority for activities relating to residue stock piles to mining which require WML
Department of Water and Sanitation	Section 21 water use - National Water Act, 1998 (Act No. 36 of 1998)	Decision making authority on matters related to water

8.1 EIA Process in terms of NEMA

An EIA process evaluates the potential positive and negative impacts of a project and develops measures to

reduce the negative impacts and enhance the positive impacts through a Scoping and EIA process.

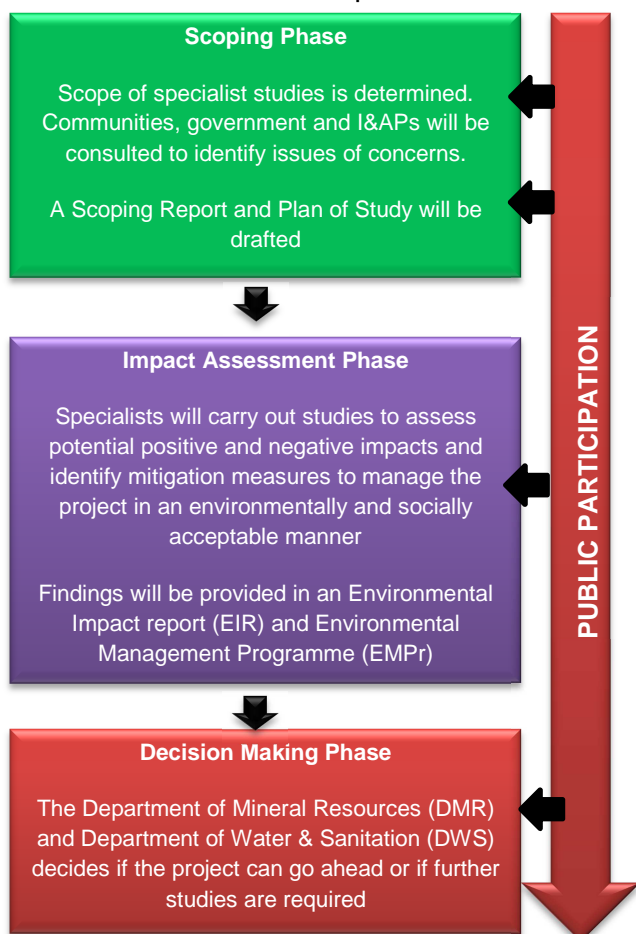
As part of the Scoping Phase, necessary specialist studies will be identified and specialists appointed. The specialists will conduct studies to identify and assess potential impacts on the environment and people, and recommend measures to reduce negative impacts and enhance positive impacts.

The EIA Phase will include, but not be limited to assessment of the following aspects that may be affected by the proposed mining activities:

- Air quality (dust);
- Biodiversity (ecology);
- Cultural/heritage resources;
- Groundwater;
- Noise and vibration;
- Socio-economics;
- Soil – land use and land capability;
- Surface water;
- Waste management; and
- Visual aspects.

9. Diagramme of EIA Process

The EIA/EMPr has several phases:



The Scoping and EIA Process will be completed within 300 days as stipulated in the NEMA EIA Regulations of 2014.

11. Way Forward

Through this Background Information Document (BID), notification is being given to all I&APs in terms of Sections 41 to 44 of Regulation 982 of NEMA, informing them that in terms of NEMA, a Scoping Report will be prepared and submitted to the DMR.

A Water Use Licence Application and associated reports will be submitted to the Department of Water & Sanitation (DWS) to obtain environmental authorisation for the proposed Geluk Mine project.

Further I&AP notification, in the form of site notices will be placed on the affected property and an advertisement has been placed in the Steelburger News.

Stakeholders will be consulted as required to provide them with information about the proposed project and with opportunities for them to voice any concerns they may have and to comment on the specialist studies that are planned for the EIA phase.

Draft copies of the Scoping and the EIA Reports will be made available for comment and electronic copies will be provided upon request. Stakeholders will be notified of the venue where the reports are available for review and of the review period. Comments received from stakeholders will be incorporated in the reports and submitted to the competent authorities.

12. Refresher as to how you can participate

- By responding (by phone, fax or e-mail) to our invitation for your participation,
- By returning the attached Registration and Comment Form to the address provided for the environmental consultant either by fax, e-mail or post **on or before 20 August 2015**;
- By telephonically contacting us if you have any queries, comment or issues
- By reviewing and commenting on the Preliminary and updated Scoping Report, EIR and EMPr and within the stipulated timeframes.



ENVIRONMENTAL IMPACT ASSESSMENT (EIA) PROCESS, WATER USE LICENSE (WULA) AND WASTE MANAGEMENT LICENSE (WML) APPLICATION FOR THE PROPOSED DEVELOPMENT OF THE "GELUK MINE" AND ASSOCIATED INFRASTRUCTURE AT MAGNET HEIGHTS, WEST OF STEELPOORT IN LIMPOPO PROVINCE

DMR REF: LP 30/5/1/2/3/2/1/10107 EM

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TITLE (Prof/Mr/Mrs)		FIRST NAME	
SURNAME			
CAPACITY (eg. Director/Secretary)			
ORGINASATION			
POSTAL ADDRESS		POSTAL CODE	
TEL NO:		CELL NO:	
FAX NO:		EMAIL ADDRESS:	
COMMENTS/ISSUES / CONCERNS (Please use separate sheet, if required)			

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