

BACKGROUND INFORMATION DOCUMENT

APPLICATION FOR A MINING PERMIT WITHIN A SECTION OF PORTION 19 WITHIN THE FARM
SYFERFONTEIN 303 IP LOCATED NEAR HARTEBEEFONTEIN IN THE NORTH WEST PROVINCE

DMRE REFERENCE: NW 30/5/1/3/3/2/1/10853 MP

The purpose of the Background Information Document (BID) is to provide information to assist stakeholders participating in the Basic Assessment process for the proposed project. This BID has been developed to:

- Share information about the proposed project;
- Present the Environmental Impact Assessment (EIA) process that will be followed to obtain an Environmental Authorisation (EA) according to the NEMA and MPRDA
- Provide more details about the Public Participation Process (PPP) which will be followed.

Project Description

Idwala Industrial Holding Limited currently operates a pyrophyllite mine located near Ottosdal in the North West Province. This deposit's life of mine is nearing the end. Idwala therefore has to source another similar deposit to replace the current one. Several potential deposits have been evaluated and the one located within portion 19 of the farm Syferfontein was the most viable option. The extent of the area applied for; under the ambit of the mining permit is approximately 4.8 hectares.

The project is situated ± 16 kilometres (km) southwest of the town of Hartbeesfontein and ± 30 km west of Klerksdorp in the North West Province. The project is located within the Dr Kenneth Kaunda District Municipality and City of Matlosana Local Municipality. See Figure 1 and Figure 2. The mineral pyrophyllite is being applied for under the integrated mining permit with waste management licence application. A water use licence application will also be applied for.

Basic Overview of Mining Activities & the Mining Method

The proposed Idwala Pyrophyllite Mine will be an opencast mine. Some drilling and blasting may be required to remove the surrounding or overlying hard rock and reach the pyrophyllite (only when necessary). Desktop studies carried out has identified the 'ideal' extraction area and thus mining will commence at the identified area, as per the mining plan. By means of an excavator or front end loader, the pyrophyllite is barred down from the exposed face. The derived rocks are loaded, by either an excavator or front-end loader, to the primary crusher. From the primary crusher, the pyrophyllite is sent through a vibrating screen where it is sorted in particle size. The pyrophyllite is sorted and stockpiled into two basic sizes: >30 mm diameter (sent to sorting plant) and <30 mm diameter (sent to trammel screen). The pyrophyllite, once crushed, will be loaded onto trucks and transported to Idwala's Industrial Minerals branch located in Benoni, Gauteng for secondary processing and packaging.

The typical primary mining fleet for this mining method consists of excavators, front-end loaders and articulated dump trucks. The typical ancillary fleet assisting the mining fleet for this mining method include: graders, water trucks and diesel bowlers.

Infrastructure Requirements

Idwala Industrial Holdings ("Idwala") will initially operate using diesel-powered generators to sustain the office facilities. Idwala will apply to Eskom for a connection to the grid for power to run the plant and all associated processes at the operation when required.

Water supply requirements are estimated to be ± 1000 litres per day. Water will initially be trucked in using a water truck and water storage tanks. The site has an unregistered borehole, the relevant registration and permits must be obtained before water can be extracted.

The surface infrastructure of the mine includes the following:

- » Haul roads, mine and access road of the main road;
- » Stockpiles located in the plant area
- » Stores
- » Crushing Plant
- » Administration Offices
- » Ablutions
- » Trackless mobile machinery and light delivery vehicle parking bays

Needs and Desirability for the Proposed Mining Permit

Assessment of the geological data available has determined that the above-mentioned area is suitable for mining the mineral pyrophyllite - a hydrous aluminium silicate with a structure similar to the mineral talc.

Talc and pyrophyllite deposits, collectively have a reserve base of about 36 Mt, although most operations have orebodies of <2Mt. The average age of talc and pyrophyllite mines in South Africa is 47.2 years. Major markets for pyrophyllite are paint, paper, synthetic diamond manufacture, resin filler and refractory applications, which account for 86%

of total sales. Niche/ growth markets for pyrophyllite include specific refractories, wear chute linings, special paints, chromic acid pots, wire drawing, new crucible products, import replacement in the paper industry, personal healthcare, brake linings, white cements and other civil applications. In the high-value pyrophyllite market, international competition is intense. These markets include refractories, synthetic diamond manufacture, kiln furniture and wear-linings.

South African pyrophyllite deposits have been labelled A-grade (one of only a few in the world). Raw material from these deposits has the following characteristics: excellent thermal shock resistance, extremely low thermal expansion, excellent chemical resistance, high mechanical strength and high melting point (1600°C). The average price of pyrophyllite is approximately R3100 per ton.

Potential Environmental Impacts Associated with the Proposed Project

Potential impacts relate to:

- » Air quality - fugitive dust may occur due to excavation, crushing, movement of vehicles and trackless mobile machinery within the site. Limited gaseous or particulate emissions are also anticipated from exhaust emissions from operation's vehicles and equipment.
- » Traffic - movement of haulage trucks transporting the product from site into the market (off-takers).
- » Noise – crushing is expected to be the main source of noise. Noise associated with the movement of vehicles within the mining area is also anticipated.
- » Soil and groundwater pollution - soil and groundwater pollution may occur due to oil leaks from site operation equipment (e.g. crushers and trackless mobile machinery) that will be within the site.
- » Socio and economic impacts - mining may result in positive socio-economic opportunities in terms of local employment

opportunities as well sourcing supplies required from local/ surrounding suppliers/ contractors (where possible).

Environmental Impact Assessment Process

Listed activities identified in GNR.327 EIA Regulations, 2014 (amended 2017) apply to the proposed mining project. The mining permit application itself falls within the ambit of Listed Activity No. 17 of GNR. 325 Listing Notice 1 of the EIA Regulations, 2014 (amended 2017). In terms of the applicable legislation, a Basic Assessment ("BA") process is required (see Figure 4 for the basic assessment process diagram).

ZN Geo Services (Pty) Ltd, an independent environmental consultant, has been appointed to undertake the above authorisation process on behalf of Idwala Industrial Holdings Limited ("Idwala").

For this proposed project, the competent authority is the Department of Mineral Resources ("DMR"). Idwala Industrial Holdings Limited can only commence with activities once an EA and Mining Permit has been granted by the DMR.

Public Participation Process

The aim of the Public Participation Process ("PPP") is to allow interested and affected parties ("I&APs") the opportunity to gain an understanding of the project and consider all facets of the proposed mining activities. The PPP will:

- » Provide I&APs with information about the proposed mining activities and associated potential impacts;
- » Allow I&APs the opportunity to provide input, such as concerns or queries, on the proposed project; and

- » Incorporate the input raised by I&APs in the study and ultimate decision-making process.

The following activities will take place during the public participation process:

- » Advertising the EIA Process (in local press): (i) Advertisements will be placed in the local newspaper (Klerksdorp Record) and (ii) site notices will be placed at the project site and public venues;
- » Registering I&APs and key stakeholders on the database. A call for stakeholders to register on the project database will be made through the advertisement and site notices, as well as through letters of notification.
- » This Background Information Document ("BID") will be distributed to I&APs (by-hand and via e-mail, or post/fax where necessary) informing stakeholders of the EA and Mining Permit Application being applied for by Idwala and other pertinent information as detailed herewith.
- » The Draft Basic Assessment Report ("DBAR") will be made available for a 30-day public and authority review period. Stakeholders will be informed of the availability of the Draft Basic Assessment Report through the advertisements, site notices and letters of notification. The DBAR will be made available at a public venue in close proximity to the site and online (via a Dropbox link).
- » Recording all comments, issues and concerns raised by I&APs and preparation of a PPP report and Comments & Responses Report ("CRR").
- » Updating of the Basic Assessment Report taking into consideration all comments received; and
- » Submission of the Final Basic Assessment Report ("FBAR") to the DMR for acceptance so the DMR can make a decision on whether or not to grant the mining permit.

Getting Involved

Surrounding communities, government and other stakeholders such as traditional authorities, community leaders, Non-Governmental Organisations (NGOs) and others are invited to register as I&APs.

Stakeholders are encouraged to provide written comment on the draft reports as it is made available, and these comments will be incorporated into the final reports submitted to the DMR. Attached herewith is a Comments and Registration form, and you as a stakeholder is welcome to complete the form and return it to ZN Geo Services. Registration on the project database also means that your details may be shared in the public domain as our reports will contain a project I&AP database and the CRR which records written comments received from stakeholders.

As a registered stakeholder, you will also be notified as the project progress; up to and including when a decision has been made by the DMR on the EA and Mining permit applications.

How to get involved?

All persons who wish to take part in the Public Participation Process by commenting on or raising any concerns regarding the development are invited to do so through the following means:

1. Registering as an Interested and Affected Party (in writing at the details provided below);
2. Submit any comments in writing on the response sheet attached to this document if you have any (and return to us within timeframes provided; and
3. Review the Draft Basic Assessment Report, when it becomes available, and raise any concerns or comments in writing within the timeframes provided.

Contact Details for Registering as an I&AP and commenting on the proposed project

Contact: Zama Sithole (Environmental Assessment Practitioner)
E-mail: zama@zngeo.co.za
Cell/ Mobile: +27 83 467 3532
Fax: +2786 620 3833

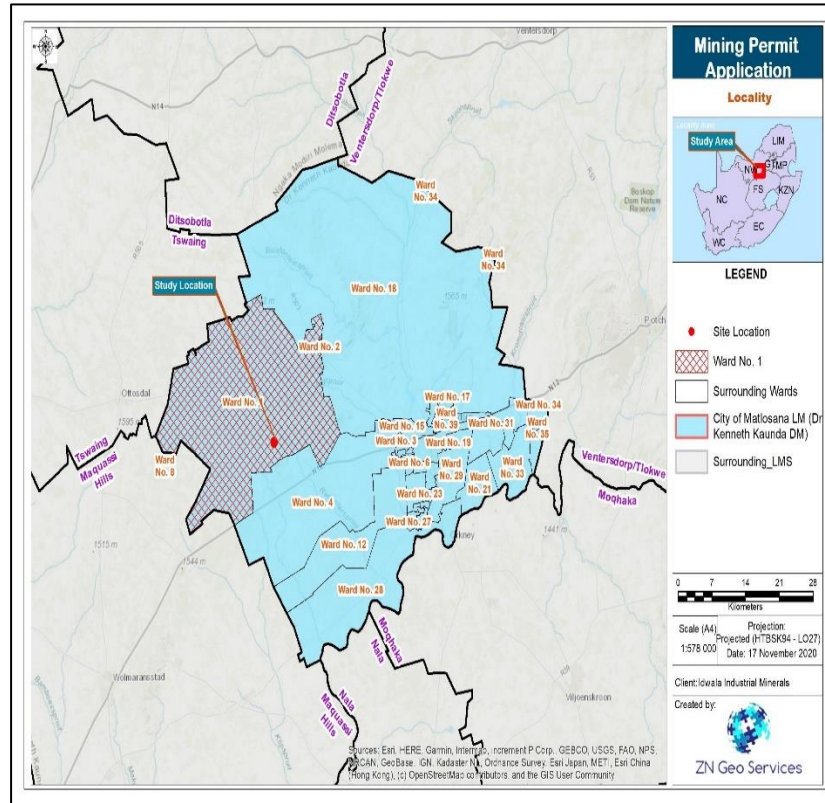


Figure 1: Locality Map

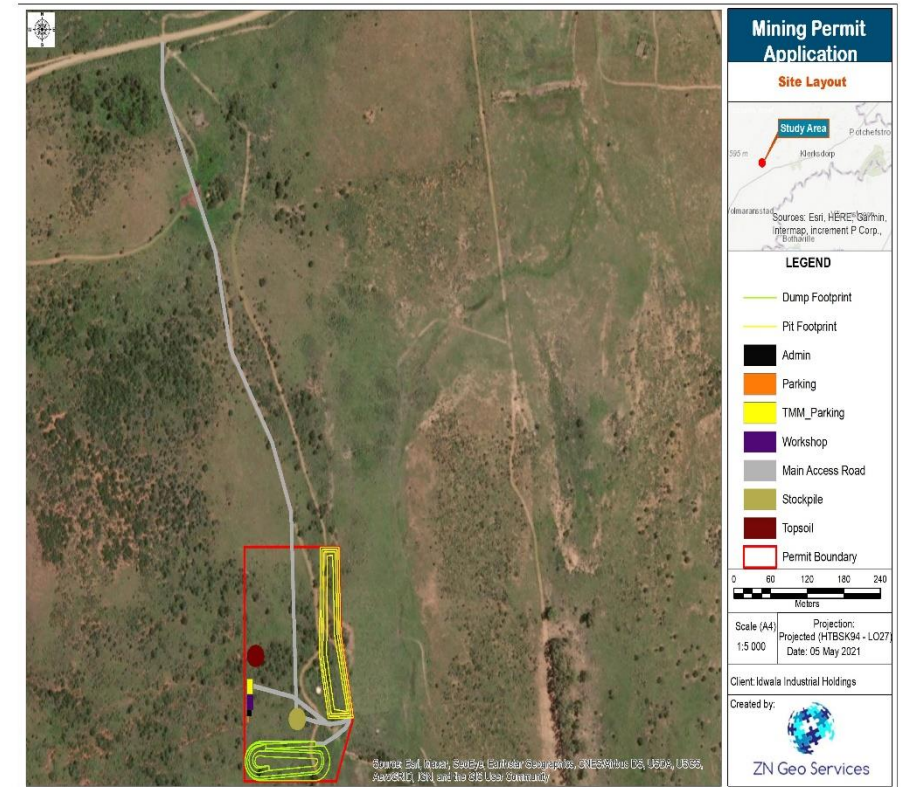


Figure 2: Site Layout Plan

Samples Required:

First Pass: A
 B
 C
 D

Second Pass: B
 C
 D

Then: E
 F
 G

Also: Sample from the fines dump

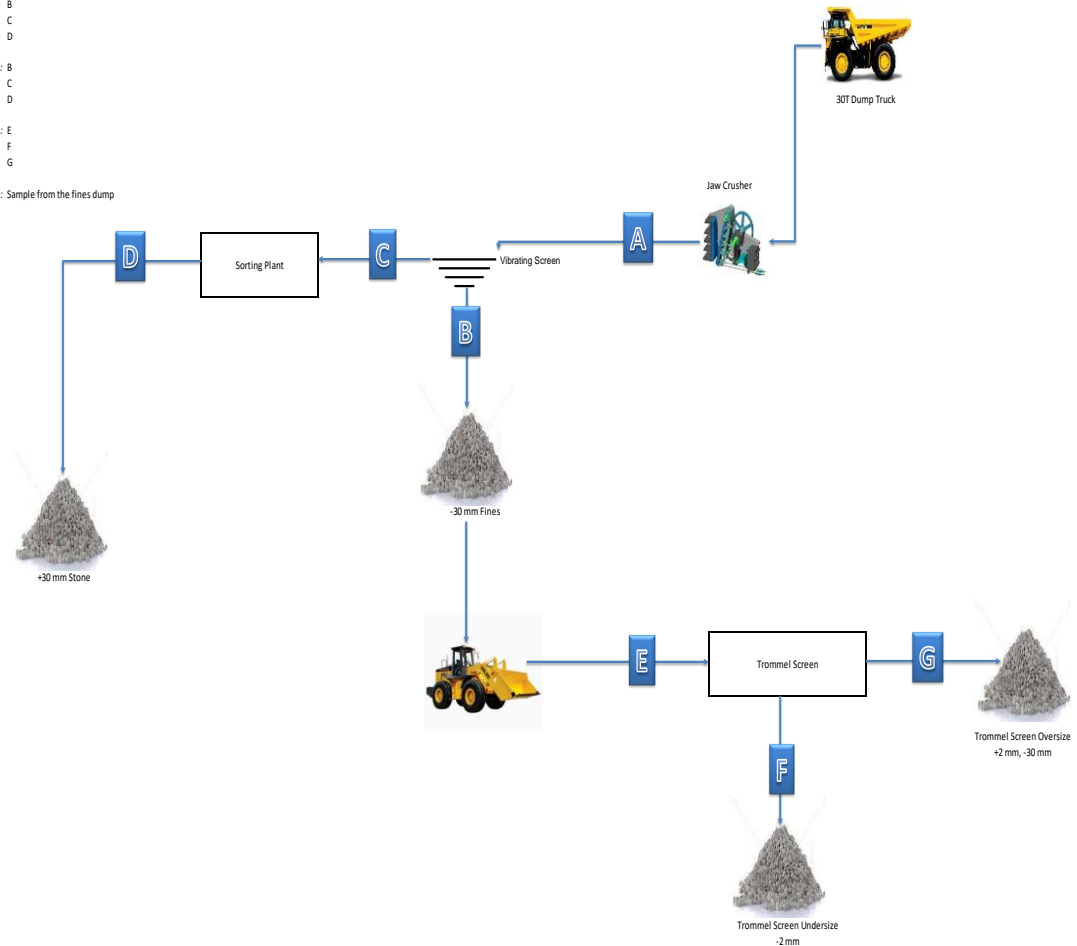


Figure 3: Mining Method

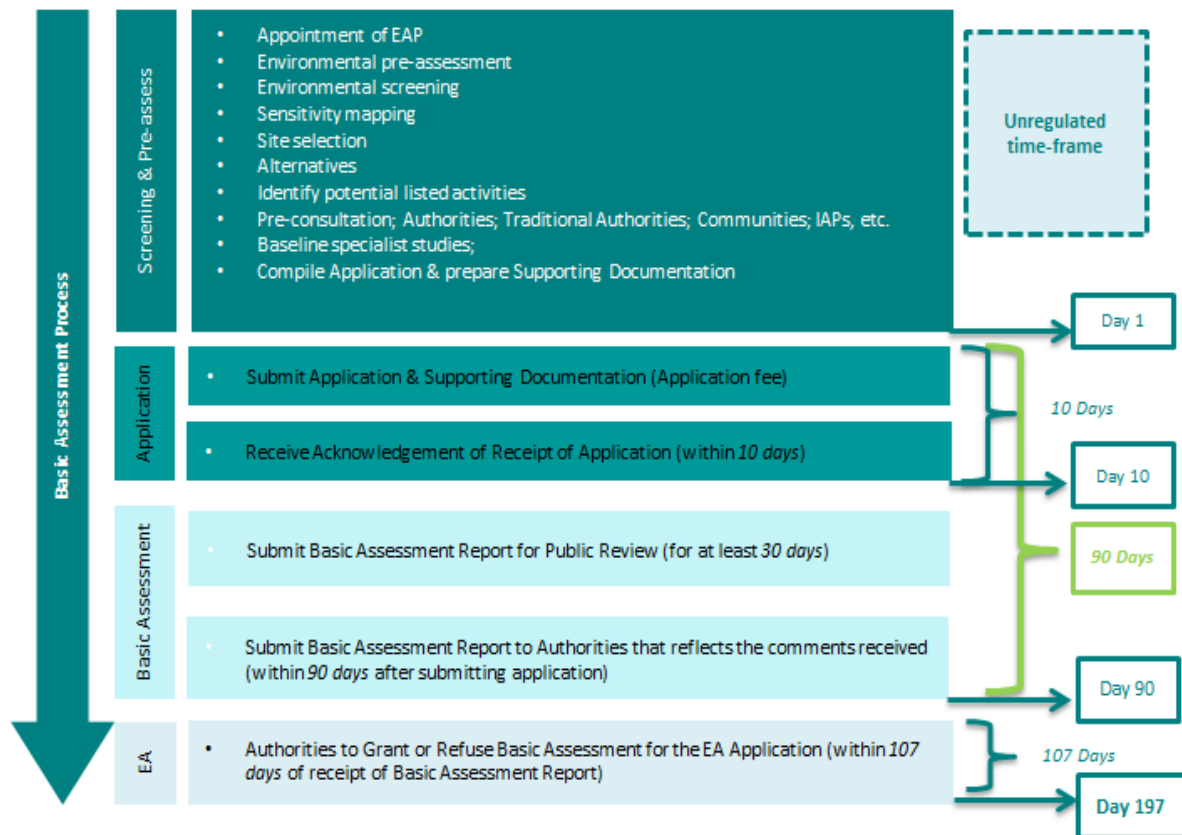


Figure 4: Basic Assessment Process

COMMENTS AND REGISTRATION FORM
DMRE REFERENCE: NW 30/5/1/3/3/2/1/10853 MP

Please provide your complete contact details:

Name and Surname:	
Organisation and Designation:	
Physical Address:	
Postal Address (if differ to the Physical Address):	
Contact Number (Landline and/or Mobile/Cell):	
E-mail Address:	

Would you like to register as an interested and affected party (I&AP)?

YES

NO

Please Note: Once registered on the project database, your details may be included in public documentation.

Please state your interest in the Proposed Project (insert additional pages if necessary):

Please list your questions, views or concerns regarding the Proposed Project (insert additional pages if necessary):

Please provide contact details of other persons who you may regard as a potential I&AP:

(Include Name & surname, contact number, email, etc.)

Contact Details for Registering as an I&AP and commenting on the proposed project

Zama Sithole (Environmental Assessment Practitioner)

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