

# **Limpopo Mineral Information**

## **Description of land and minerals**

Limpopo province consists of the vast Lowveld plain, which is interrupted by several mountain ranges rising out of the Highveld plateau in the province's south and centre.

The mineral resources found in the Limpopo Province include the platinum group metals

- iron ore
- chromium
- coal,
- diamond
- phosphate,
- copper,
- gold,
- silicon

Other minerals that can be mined in the MLM include the iron ore, gold, lithium and manganese.

## **Ore extraction methods**

The primary methods used to extract minerals from the ground include: Underground mining. Surface (open pit) mining. Placer mining.

## **Geotechnical factors/location**

The geology of Molemole Local Municipality MLM area is covered on the 1: 250 000 scale, 2328 Pietersburg map produced by the Geological Survey of South Africa, now the Council for Geoscience. The geology of the area covering the Molemole municipality is described in detail amongst others by Brandl (1986) and Bullen et al (1995). The map showing the geology and the distribution of the mineral occurrences and deposits in the Molemole municipality is attached to below in Fig1

## **Current minning/quarring and prospecting activities**

Previously, the mineral rights in South Africa were owned either by the State or the private sector. This dual ownership system represented an entry barrier to the potential new investors. The current Government 's objective is for all the mineral rights to be vested in the state, with

due regard to the constitutional ownership rights and security of tenure. The Mineral and Petroleum Resources Development Act (MPRDA), No 28 of 2002 transferred ownership of privately held mineral rights to the State to enable any third party to apply to the Department of Minerals and Energy for new order prospecting or mining rights over these previously privately held minerals. In order to promote security of tenure and to secure existing prospecting and mining rights, affected entities were given five years to submit applications for the conversion of old order mining licences to new order mining rights.

## **Summary and recommendations**

A variety of minerals are known to occur in the MLM. Some of these minerals are currently mined (i.e. dimension stone) or explored by different companies. Most of the mineral occurrences/deposits are small in size which renders the occurrence/deposit uneconomic or suitable for exploitation by small-scale miners. The MLM has the potential for minerals that include the following:

### **Iron Ore**

The iron ores in the Zandrivierspoot area have the potential to support a large scale mine. Sekoko Resources (Pty) Ltd and Sishen Iron Ore Company (Pty) Ltd are currently evaluating the economic potential/viability of exploiting these deposits. Unlike other mineral occurrences in the MLM, the iron ores have the potential to support medium-large scale mining projects.

### **GOLD**

There are gold deposits in the MLM area. Most of these deposits were mined and abandoned because of the small size of the deposits and low gold price. The gold price has shown some improvements in recent years. Detailed geological investigations need to be conducted in order to determine the economic viability of exploiting these deposits. Copper can be produced as a by-product from the exploitation of these deposits. Because of the small size of the deposits, most of them can be exploited by small-scale miners.

### **DIMENSION STONE (GRANITE) AND CRUSHER STONE**

Dimension stone quarrying is the current major mining activity in the municipality and it has potential to grow. Depending on the demand of the dimension stone and the production costs, the MLM can grow to become one of the largest suppliers of dimension stones. Currently the quarries export rough blocks. The opportunities exist for the dimension stone producers in the MLM to start beneficiating on a bigger scale. They can at least export finished/semi-finished products. Processing of the dimension stones quarried in South Africa is done outside the South African borders. According to August Auchterlonie a senior minerals economist at Mintek, the relocation of processing into South Africa is an opportunity for additional training and production ([www.miningweekly.com/article](http://www.miningweekly.com/article)). Processing of the granite blocks from the vicinity of quarrying will reduce the transportation costs, thereby increasing profits from such operations. This will also help in job creation. The municipality with help from the Provincial Government can facilitate the development of a granite beneficiation project. The project can involve cutting

and polishing of granite slabs and tiles for both local and export market. Waste generated from the dimension stone quarries can be crushed and used as aggregates. To our knowledge, none of the dimension stone quarries in the MLM crush their waste for use as aggregates. Earthstone Granite plans to crush the waste generated on a temporary basis. The crushed stone will be used in road construction, building construction, brick making, etc. Earthstone Granite has indicated that they have already entered into agreement with a Black Economic Empowerment company that will do the crushing. If all the dimension stone quarries in the MLM do the same, some jobs will be created, as such reducing the poverty level in the municipality.

## BRICKCLAY/SHALE

The potential for brickclay in and around Morebeng (Soekmekaar) has to be investigated.

## Short info

Dominant minerals include iron, gold, copper, graphite and many others. Currently companies such as Sishen Iron Ore Company (Pty) Ltd and Sekoko Resources are investigating the economic viability of exploiting some of these minerals.

## Reference

(<https://www.molemole.gov.za/docs/mine/MINERAL%20AND%20MINING%20DEVELOPMENT%20STUDY.pdf>)

<https://www.molemole.gov.za/docs/mine/MINERAL%20AND%20MINING%20DEVELOPMENT%20STUDY.pdf>

<https://www.gcis.gov.za/sites/default/files/docs/resourcecentre/pocketguide/2012/15%20Mineral%20Resources.pdf>

<https://projectsiq.co.za/mining-in-limpopo.htm>