

## 7. PUBLIC PARTICIPATION

Public involvement is an essential part of the prospecting right process. The public participation process affords interested and affected parties with an opportunity to raise possible environmental, economic and social concerns in relation to the proposed project.

The proposed project will be advertised in a locally distributed newspaper to inform people about the project and request them to identify environmental issues. Notices will also be erected on site. All issues and comments received from interested and affected parties (I&AP's) will be recorded and presented to the project team and regulatory authorities.

## 8. REGISTERING AS I&AP

All identified interested and affected parties are requested to register by submitting their comments, questions or concerns with regard to environmental issues on the attached form and forwarding it to the person listed below on/ or before **10 May 2013**.

## 9. PROSPECTING RIGHT PROCESS

An application is lodged with the Department of Minerals Resources (DMR)

The DMR accepts the application and request that the applicant consult with interested and affected parties and submits the results thereof to the DMR together with other documentation;

The DMR reviews the submissions and either accepts or rejects the prospecting application depending on its merits;

In the event that the submission is accepted, a prospecting right is issued.

## 10. CONTACT INFO

Holistic Environmental Services (HES)

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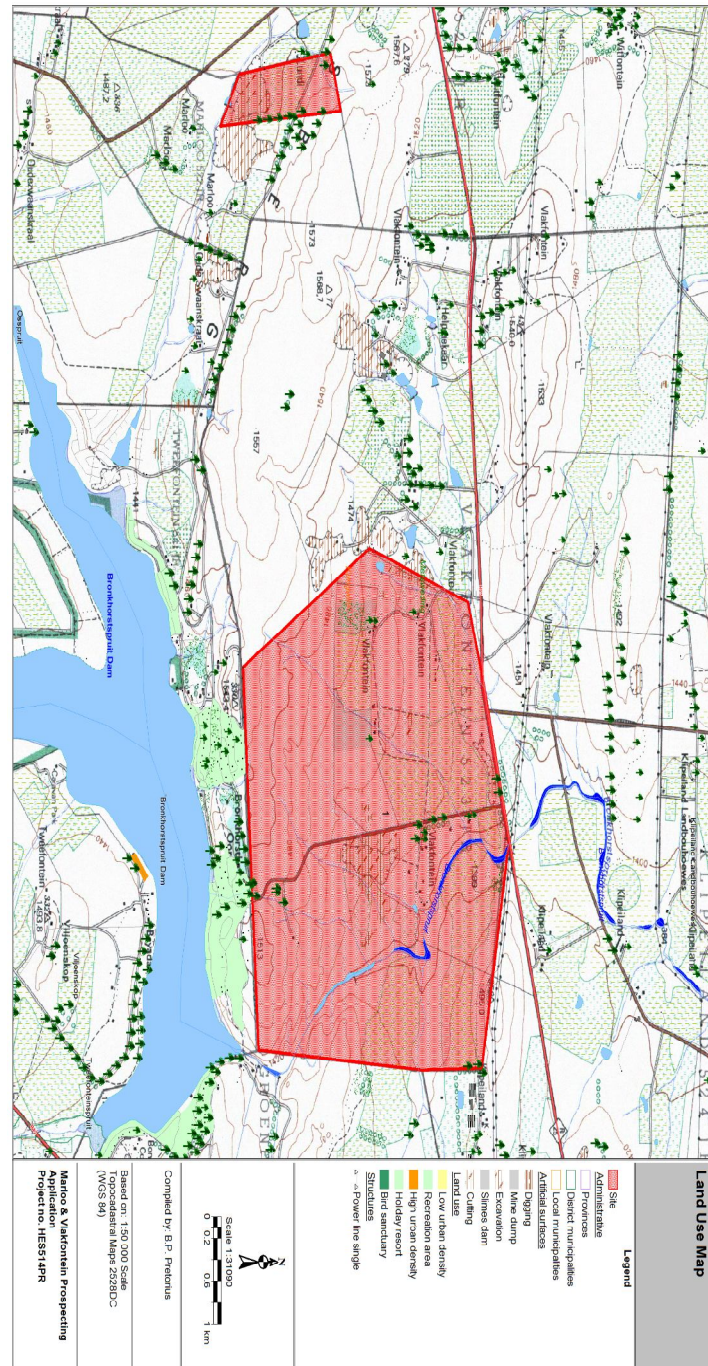
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Fig. 1: Locality Map



**HOLISTIC**  
ENVIRONMENTAL SERVICES

## BACKGROUND INFORMATION FOR THE PROSPECTING RIGHT APPLICATION ON PORTIONS OF THE FARMS MARLOO AND VLAKFONTEIN IN THE GAUTENG PROVINCE

Our Reference Number: GP30/5/1/1/10158 PR

## BACKGROUND INFORMATION DOCUMENT April 2013

## 1. INTRODUCTION AND BACKGROUND

Holistic Environmental Services Cc was appointed by Real Stone Holdings (Pty) Ltd to conduct the prospecting right application process for portion 1 of the farm Marlooo 522-JR and portions 3, 25 and 28 of the farm Vlaktefontein 523-JR, Kungwini Local Municipality, Bronkhorstspruit District, Gauteng Province as contemplated in section 16 of the Mineral and Petroleum Resource Development Act (MPRDA), (Act 28 of 2002).

The following minerals will be prospected for at the site:

- Coal;
- Clay
- Shale.

The purpose of this Background Information Document (BID) is:

- ⇒ To provide information about the proposed project;
- ⇒ To explain the prospecting right process;
- ⇒ To allow the identified interested and affected parties (I&APs) the opportunity to comment on the proposed scope of work and prospecting right process.

## 2. LOCALITY

The study area falls within the jurisdiction of the Kungwini Local Municipality, Bronkhorstspruit District, Gauteng Province. The proposed site consist of portion 1 of the farm Marlooo 522-JR and portions 3, 25, 28 of the farm Vlaktefontein 523-JR, with Bronkhorstspruit located approximately 11 km north-east of the site. Refer to Locality Map, Figure 1.

### 3. PROJECT PROPOSAL

The main activities associated with each prospecting drill site are as follows:

- Use of access roads
- Drill site establishment, which includes:
  - Slashing / mowing of grass 10m x 10m
  - Water sump excavations
  - Separate topsoil and subsoil storage mounds in within camp
  - Fencing around perimeter of 10m x 10m clearance
  - Chemical site toilet placement
  - Temporary water tanks in camp
  - Accommodation for staff near drill site areas
  - Vehicular transport to and from site, for inter alia:
  - Staff transport to and from site
  - Fuel transportation (for drill rig)
  - Daily water transportation for drill use and
  - Chemical transportation and storage
  - Equipment transportation
  - Transport of drill core from site
  - Waste removal and disposal, including drill sludge bioremediation
  - Sewage removal and disposal
  - Drilling activities
  - Site rehabilitation

### 4. LEGISLATIVE FRAMEWORK

Before a mining company/applicant invest money in setting up a mine, they have to investigate the area to ascertain the following:

The type of minerals (if any) of commercial value that exist in a specific area;

Is there enough mineral to support the capital expense of setting up a mine;

Is the mineral deposit in a formation that can be mined in an economically viable manner;

The optimal techniques and technologies required for the mineral to be mined.

In order to determine the above the applicant or mining company needs to conduct preliminary investigations (called prospecting) in the area. According to the Minerals and Petroleum Resource Development Act (Act No. 28 of 2002), prospecting is defined as follows:

“the intentional searching of any mineral by means of any method a) which disturbs the surface or the subsurface of the earth including any portion of earth that is under the sea or under water, or b) in or on any residue stockpile or residue deposit of any mineral to determine the extent and the economical value, or c) in the sea or other water on land”.

Other relevant legislation includes the following:

- ⇒ Atmospheric Quality Act (Act 39 of 2004) with subsequent amendments and Regulations;
- ⇒ National Environmental Management Act, (Act 107 of 1998);

- ⇒ National Heritage Resources Act, (Act 25 of 1999);
- ⇒ National Veld and Forest Fire Act, (Act 101 of 1998);
- ⇒ National Water Act, (Act 36 of 1998);
- ⇒ Occupational Health and Safety Act, (Act 85 of 1993).

### 5. ENVIRONMENTAL STATUS QUO

#### Vegetation

The study area forms part of the Grassland and Savanna Biome. The most recent vegetation classification shows the majority of the sites are located within the Rand Highveld Grassland (footslopes), while the sections of the sites that are located within the Magaliesberg Ridge forms part of the Gold Reef Mountain Bushveld (Mucina et al. 2006). It must be noted that the site is located in close proximity of the Bronkhorstspuit Nature Reserve.

#### Climate

Mean annual temperature varies from approximately 19.3°C in the north of the province to 16.0°C in the south. The eastern and central areas, however, experience a lower mean annual temperature of around 15.0°C. There is large variation between summer and winter temperatures, with Gauteng experiencing a daily mean temperature in January and July of 21.2°C and 9.8°C, respectively (Schulze, 1997). Due to the long clear nights, little wind and dry air in Gauteng in winter, the occurrence of frost is common in the province. Gauteng experiences on average 30 days of frost per year (Schulze, 1997). Winter atmospheric conditions cause temperature inversions, which have the effect of keeping polluted air close to the surface, so that winter air quality over the Highveld is generally poor.

#### Geology and Soils

The target area is located within the Karoo Supergroup, a sequence of sediments. The target area is located in the Dwyka Group. The unit that will be explored is hosted within a sedimentary sequence of sandstone, arenite and shale. The Karoo Supergroup is a sedimentary sequence known for its coal content and has been explored extensively in the Kwazulu Natal and Mpumalanga provinces. There are still resources of coal and other minerals in this rock sequence that can be explored for.

#### Sub-surface Water

The site is underlain by an intergranular and fractured primary aquifer with groundwater occurrences limited to weathered and fractured zones within the bedrock, with the water rest level located within the weathered rock. The average borehole yield varies between 0.1 and 0.5 l/s, with an electrical conductivity of up to 70 mS/m.

#### Topography

The regional topographical setting of the study area is classified as *moderate undulating plains and pans and Escarpments*.

#### Vlakfontein

The site itself is located along the northern footslopes of the Magaliesberg Ridge, with the Bronkhorstspuit River traversing the site from north to south. The remainder of the site to the north is relatively flat.

#### Marloo

The site itself is located along the southern mid- and footslopes of the Magaliesberg Ridge, with a non-perennial stream traversing the site from west to east. The site has a slight rise in slope towards the north. A large section of the site was mined historically (i.e. borrow pit) and not rehabilitated.

#### Surface water

The study area is located within quaternary drainage regions B20C and B20D, situated within the Upper Olifants Catchment Management area.

#### Vlakfontein

The study area is drained mainly by means of surface run-off (sheetflow) with storm water flowing along the non-perennial and intermittent drainage features towards the perennial Bronkhorstspuit River traversing the site and eventually flowing into the Bronkhorstspuit Dam to the south of the site.

#### Marloo

A non-perennial stream traverses the site from west to east, which eventually flows into the Bronkhorstspuit Dam.

It must be noted that stream flow along the non-perennial streams generally occurs only during and directly after heavy precipitation events, and may continue for a short period directly after a particularly good rainy season.

### 6. POSSIBLE ENVIRONMENTAL IMPACTS

The following preliminary significant environmental issues have been identified and will be investigated during the prospecting right process:

- ⇒ Impact of the drilling activities and infrastructure on the physical environment
- ⇒ Loss of sense of place by surrounding property owners
- ⇒ Surface and groundwater pollution, as a result of drilling activities and construction equipment
- ⇒ Contamination of soils as a result of spillages or leakages

Prospecting operations are typically small-scale and disturbance to the environment and farming activities are minimal. It is also a requirement that the areas that are disturbed are rehabilitated to their pre-prospecting condition.