#### 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)** 

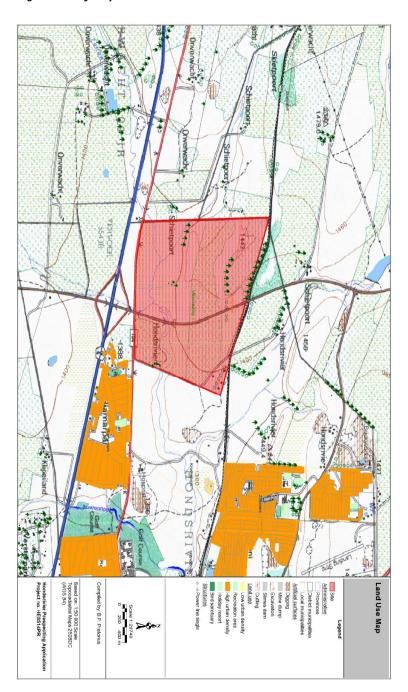
Mr Bennie Pretorius
Phone: 015 298 8035
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Polokwane: 0882

E-mail: bpretorius@holistic-services.co.za

Fig. 1: Locality Map





## BACKGROUND INFORMATION FOR THE PROSPECTING RIGHT APPLICATION ON A PORTION OF THE FARM HONDSRIVIER 508-JR IN GAUTENG

Our Reference Number: GP30/5/1/1/10165 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 27 of the farm Hondsrivier 508-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 consists of portion 27 of the farm Hondsrivier 508-JR, with Bronkhorstspruit located approximately 2 km 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 mined in a 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 be means of any method  $% \left( 1\right) =\left( 1\right) \left( 1\right) \left($
- 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 OUO

#### Vegetation

The study area forms part of the Grassland Biome. The most recent vegetation classification shows the site to be located within the Rand Highveld Grassland (Mucina et al. 2006).

#### 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*.

The site exhibits a slight downward slope towards the south-eastern section of the site and the Honderivier traversing the site from west to east.

#### Surface water

The study area is located within quaternary drainage region B20D, situated within the Upper Olifants Catchment Management area. 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 Honde River traversing the southern section of the site, eventually converging with the Bronkhorstspruit River approximately 2 km east of the site. The distance of the operation to any drainage feature will depend on the exact location of the prospecting drilling. The Regulations on the Use of Water for Mining and Related Activities aimed at the Protection of Water Resources, (R704, GG20119, 4 June 1999 in terms of the NWA), deal with measures relating to water resources in the context of mining and mining activities which cause or are likely to cause pollution of a water resource.

The regulations relating to the restrictions of locality of prospecting activities will be adhered to, no prospecting activities will allowed to be undertaken under or within the 1:50 year floodline or within 100m form a water resources. Should prospecting be required within 100m of any water course; the necessary authorization should be obtained from the DWA.

#### 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.