# SITE SENSITIVITY VERIFICATION REPORT FOR THE PROPOSED PROSPECTING RIGHT ON PORTION 3, 5 AND THE REMAINING EXTENT OF THE FARM WELVERDIEND NO 511 MAGISTERIAL DISTRICT OF VANRHYNSDORP WESTERN CAPE PROVINCE



# **OCTOBER 2021**

**REFERENCE NUMBER:** WC 30/5/1/1/2/10375 PR

#### PREPARED FOR:

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#### **EXECUTIVE SUMMARY**

Paramon (Pty) Ltd ("hereinafter referred to as "the Applicant"), applied for environmental authorisation (EA) and a prospecting right for all forms of Marble (Dimension Stone), Limestone, Dimension Stone (General) on portion 3 and the remaining extent of the farm Welverdiend no 511 magisterial district of Vanrhynsdorp Western Cape province.

The proposed project triggers listed activities in terms of the National Environmental Management Act, 1998 (Act 107 of 1998) and the Environmental Impact Assessment Regulations 2014 (as amended 2017) and therefore requires an environmental impact assessment (basic assessment process) that assess project specific environmental impacts and alternatives, consider public input, and propose mitigation measures, to ultimately culminate in an environmental management programme that informs the competent authority (Department of Mineral Resources and Energy) when considering the environmental authorisation. This report, the Draft Basic Assessment Report, forms part of the departmental requirements, and presents the first report of the EIA process.

#### **Project description**

The proposed prospecting footprint applied for was approximately 35 km2 over portion 3 and the remaining extent of the farm Welverdiend no 511 magisterial district of Vanrhynsdorp Western Cape province. However, after consultation with the land owners the remaining extent of the farm Welverdiend no 511 magisterial district of Vanrhynsdorp Western Cape province was removed from this application and will only continue on portion 3 of the farm Welverdiend no 511 magisterial district of Vanrhynsdorp Western Cape province in which case the land owner is the applicant.

The proposed prospecting footprint will now be reduced to approximately 70.077 ha over the above mentioned property and will be performed over a period of one (1) week over the entire prospecting period. Prospecting will involve non-invasive surface exploration to limit the environmental footprint experienced within the prospecting area and generally leaves little to no evidence of exploration activity.

The non-invasive activities will consist out of the following:

- Traversing the entire farm, and/or identified target areas on foot
- Geological mapping and characterisation of the surface material and mineralisation
- Geotechnical and structural orientation mapping
- Collection of rock samples (loose) which is representative of the mineralisation
- Verification of all relevant site, geological and mining data

The aim of the exploration activity is to verify the geology, historical data and any and all site data for the project, as well as to produce a most up-to-date current surface geological and geotechnical map of the mineralised zone.

The land surface rights of this application area is owned by the applicant.

Land access and site visit will be communicated prior to commencement of activities.

Access to the proposed prospecting area will be via the N7, making use of the existing internal/haul roads to access the prospecting area.

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Figure 1: Figure 1: Satellite view of the proposed prospecting right area (purple polygon) of Paramon (Pty) Ltd (image obtained from Google Earth).

This report addresses the findings of the Screening Tool Report (Appendix M), generated from the National Web Based Environmental Screening Tool, and provides a motivation for the various specialist studies identified to be conducted. As per the Screening Tool Report, the proposed site is located within a low sensitivity area from an agricultural perspective, a medium sensitivity area from an animal species perspective, a low sensitivity area from an aquatic biodiversity perspective, a low sensitivity area from a civil aviation perspective, a low sensitivity area from a plant species perspective, a low sensitivity area from a defense perspective, a medium sensitivity form a paleontology perspective and a low sensitivity area from a terrestrial biodiversity perspective.

## Summary of specialist reports.

(This summary must be completed if any specialist reports informed the impact assessment and final site layout process and must be in the following tabular form):-

Table 1: Summary of specialist reports

LIST OF STUDIES UNDERTAKEN	RECOMMENDATIONS OF SPECIALIST REPORTS	SPECIALIST	REFERENCE TO APPLICABLE
		RECOMMENDATIONS THAT	SECTION OF REPORT WHERE
		HAVE BEEN INCLUDED IN	SPECIALIST RECOMMENDATIONS
		THE EIA REPORT	HAVE BEEN INCLUDED
		(Mark with X if applicable)	

The screening report identified the following list of specialist assessment for inclusion in the assessment report:

- Agricultural Impact Assessment;
- Archaeological and Cultural Heritage Impact Assessment;
- Paleontology Impact Assessment;
- Terrestrial Biodiversity Impact Assessment;
- Aquatic Biodiversity Impact Assessment;
- Hydrology Assessment;
- Noise Impact Assessment;
- Radioactivity Impact Assessment;
- Traffic Impact Assessment;
- Geotechnical Assessment;
- Socio-economic Assessment;
- Plant Species Assessment;

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- Animal Species Assessment.
- Agricultural Impact Assessment (AIA):

Prospecting of the proposed area will be performed over a period of one (1) week. The prospecting programme will consist of non-invasive surface exploration. The non-invasive prospecting activity is implemented to limit the environmental footprint experienced within the prospecting area and generally leaves little to no evidence of exploration activity. The non-invasive exploration programme will consist of a surface geotechnical mapping programme of around three (3) days geological field work on Portion 3 of the farm Welverdiend No 511 situated in the magisterial district of Vanrhynsdorp, Western Cape Province. The agricultural potential of the farm was assessed as part of the EIA, however, after consultation with the land owner Greenmined is of the opinion that a specialist AIA is not needed as the prospecting involve non-invasive activities. The proposed project will not necessitate the loss of any agricultural field, centre pivot or similarly operated agricultural area.

## Air Quality Statement:

As per the Air Quality Statement compiled by Enviroworks dated October 2021 (attached as appendix O1 to FBAR) - Considering the specific project description above (as provided to the specialist by the Consultant), the rural receiving environment and low population density in the immediate surrounds, it is not anticipated that the prospecting activities will generate a significant dust nuisance from driving the two Light Duty Vehicles during the one week of prospecting work on unpaved existing access roads. Further to this, fugitive dust emissions due to vehicles driving on unpaved roads are often limited close to the source, and temporary in nature (being restricted to the one week of prospecting).

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- A Complaints register should be kept on site during the prospecting activities. If any complaints regarding dust nuisance are received, additional
  dust control and monitoring measures should be investigated and implemented.
- o Reduce driving speed of vehicles during prospecting, as increased vehicle speeds result in increased quantities of fugitive dust.
- Archaeological and Cultural Heritage Impact Assessment (HIA) & Paleontology Impact Assessment (PIA):

The prospecting programme will consist of non-invasive surface exploration. The non-invasive prospecting activity is implemented to limit the environmental footprint experienced within the prospecting area and generally leaves little to no evidence of exploration activity. The non-invasive exploration programme will consist of a surface geotechnical mapping programme of around three (3) days geological field work on Portion 3 of the farm Welverdiend No 511 situated in the magisterial district of Vanrhynsdorp, Western Cape Province. Comment was requested form HWC but not yet received by the printing of this document, as soon as comments are received it will be forwarded to DMRE.

▼ Terrestrial Biodiversity Impact Assessment (TBIA) & Animal Species Assessment (ASA):

Prospecting of the proposed area will be performed over a period of one (1) week. The prospecting programme will consist of non-invasive surface exploration. The non-invasive prospecting activity is implemented to limit the environmental footprint experienced within the prospecting area and generally leaves little to no evidence of exploration activity. The non-invasive exploration programme will consist of a surface geotechnical mapping programme of around three (3) days geological field work on Portion 3 of the farm Welverdiend No 511 situated in the magisterial district of Vanrhynsdorp, Western Cape

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Province. The impact on Biodiversity was assessed as part of the EIA, however, Greenmined is of the opinion that a TBIA and ASA specialist assessments are not needed as the activities will be non-invasive. The proposed project will not necessitate the loss of any natural area.

Aquatic Biodiversity Impact Assessment (ABIA) & Hydrology Assessment (HA):

The proposed project does not require a Water Use Authorisation in terms of Section 39 of the National Water Act, 1998 (Act No 36 of 1998). Non-invasive activities will take place. Existing water authorisation is in place should water be required for the implementation of the project will be bought and transported to site. Therefore, in light of the consultation on this stage there is no need for a ABIA & HA.

As per the Freshwater Statement compiled by Enviroworks dated October 2021 (attached as appendix O2 to FBAR) – Considering the specific project description above (as provided to the specialist by the Consultant) and the non-invasive prospecting method proposed, it is not anticipated that the prospecting activities will generate a noteworthy impact on the non-perennial watercourses (please refer to Appendix O2 Figure 2) during the one week of prospecting work. The prospecting will involve driving vehicles on existing unpaved access roads and traversing the area on foot, while also collecting loose surface rock samples. Even though this statement does not constitute a full specialist assessment and characterization of the non-perennial watercourses, it is the opinion of the specialist, that this detailed freshwater study will not be necessary at this stage, considering the current prospecting description. Even though this statement does not constitute a full specialist assessment and characterization of the non-perennial watercourses, it is the opinion of the specialist, that this detailed freshwater study will not be necessary at this stage, considering the current prospecting description. A portion of the non-perennial watercourse has been transformed by an old marble mine, just downstream of the artificial dam. There is also evidence of past mining and disturbance in the watercourse downstream from the old mine. This was confirmed by a site visit on 07 October 2021. It should be noted that the purpose of this site visit did not include assessing the watercourses over the entire prospecting

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right, nor did it include assessing potential impacts of the proposed prospecting.

Watercourses are nevertheless important ecological features in the landscape, therefor:

- Should this prospecting description change, the need for a more detailed freshwater study should be re-evaluated.
- Should the prospecting right be followed by a mining permit/mining application, it is recommended that a more detailed freshwater study be commissioned.

It is recommended that disturbance and damage to vegetation and the soil surface or channel morphology be avoided in the mapped (see appendix MO - Figure 2) non-perennial watercourses (this includes their bed and banks).

Even though it is not anticipated that the current planned prospecting activities will have a noteworthy impact on watercourses, it is noted that the Department will not support the potential identification of future mining activities across the river corridor.

The applicant should be aware that prospecting within the watercourse corridor does not mean that the Department will support potential identification of future mining activities across the river corridor.

Should this prospecting description change, the need for a more detailed freshwater study should be re-evaluated.

Should the prospecting right be followed by a mining permit/mining application, it is recommended that a more detailed freshwater study be commissioned. This study should, amongst the other requirements of a freshwater specialist study, recommend a suitable buffer for watercourses.

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It is recommended that the Consultant and the Applicant take note of the following comments from DEA&DP:

"The applicant is reminded of its "general duty of care towards the environment" as prescribed in section 28 of the NEMA, 1998 which states that "Every person who causes, has caused or may cause significant pollution or degradation of the environment must take reasonable measures to prevent such pollution or degradation from occurring, continuing or recurring, or, in so far as such harm to the environment is authorised by law or cannot reasonably be avoided or stopped, to minimise and rectify such pollution or degradation of the environment".

#### Noise Impact Assessment (NIA):

The potential impact on the noise ambiance of the receiving environment is expected to be of low significance and representative of the vehicles already operational at the property. Due to the small scale of the operation a NIA is not deemed applicable.

## Radioactivity Impact Assessment

A radioactivity impact assessment is not deemed necessary for the proposed mining operation that will not store any chemicals on site, perform activities of radioactive nature or generate hazardous waste of radioactive nature.

# Traffic Impact Assessment (TIA):

The Applicant will use the existing road to access the prospecting area. No upgrading of the road is needed prior to commencement. In light of the small scale of the proposed operation a TIA is not deemed necessary, should the Applicant implement the mitigation measures to be proposed in the EMPR.

#### Geotechnical Assessment:

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No reason for a geotechnical assessment could be identified as no permanent infrastructure will be established at the proposed prospecting area.

#### Socio-economic Assessment (SEA):

The application is for a prospecting right as the aim of the exploration activity is to verify the geology, historical data and any and all site data for the project, as well as to produce a most up-to-date current surface geological and geotechnical map of the mineralised zone. Results of this will determine of future mining activities will be feasible. In light of this a SEA is not deemed applicable to this project.

## Plant Species Assessment:

According to Mucina and Rutherford (2012) the proposed area extends over various vegetation types known as SKk 5 Vanrhynsdorp Gannabosveld; SKk 9 Kobee Succulent Shrubland; SKs 13 Klawer Sandy Shrubland and FRs 1 Vanrhynsdorp Shale Renosterveld. The vegetation type that dominates the area is the SKk 5 Vanrhynsdorp Gannabosveld that is mainly flat or only slightly undulating landscape supporting succulent shrubland dominated by Salsola (over large stretches), Drosanthemum, Ruschia and some disturbance indicators such as (mainly) short-lived Aizoaceae, including representatives of the genera Galenia, Psilocaulon, Caulipsolon and Mesembryanthemum. In the south, the shale plains can acquire a grassland appearance through seasonal dominance of Bromus pectinatus and Stipa capensis. Spectacular annual and geophyte flora can appear in spring after good winter rains

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however, Greenmined is of the opinion that a PIA and AIA specialist assessments are not needed as non-invasive activities will be conducted and no new areas will be opened. The proposed project will not necessitate the loss of any natural area.