BASIC ASSESSMENT REPORT

AND

ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT

PROSPECTING RIGHT AND ENVIRONMENTAL AUTHORISATION APPLICATION FOR COAL ON PORTION OF PORTION 14 ON THE FARM MIDDELBULT 235 IR, UNDER THE MAGISTERIAL DISTRICT OF DELMAS, MPUMALANGA PROVINCE

DMRE REF: MP 30/5/1/1/2/17283 PR

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PREPARED FOR:

mineral resources & energy
Department:
Mineral Resources and Energy
REPUBLIC OF SOUTH AFRICA

2022

mineral resources & energy

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REPUBLIC OF SOUTH AFRICA

BASIC ASSESSMENT REPORT AND ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT

(DMRE REF: MP 30/5/1/1/2/17283 PR)

SUBMITTED FOR ENVIRONMENTAL AUTHORIZATIONS UNDER THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 IN RESPECT OF LISTED ACTIVITIES TRIGGERED BY APPLICATIONS UNDER THE MINERAL AND PETROLEUM RESOURCES DEVELOPMENT ACT, 2002 (MPRDA) (AS AMENDED)

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File reference number SAMRAD: MP 30/5/1/1/2/17283 PR

DOCUMENT CONTROL	
Project Title:	Portion of portion 14 on the farm Middelbult 235 IR
Mineral	Coal
Site Location	Delmas Magisterial District, Mpumalanga Province.
Compiled on behalf of	Favoured by Grace (Pty) Ltd
Compiled By	Ms Valentine Mhlanga
Reviewed By	Dr Kenneth Singo
Date	2022

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EXECUTIVE SUMMARY

Favoured by Grace (Pty) Ltd (the Applicant) has applied for a Prospecting Right in terms of Section 16 of the Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002) (MPRDA) and an Application for Environmental Authorization in terms of Chapter 6 of GNR 326 promulgated under the National Environmental Management Act (Act 107 of 1998) (NEMA) to prospect for coal.

The proposed project will aim to ascertain if economically viable minerals deposit exists within the application area. To undertake prospecting activities, Favoured by Grace (Pty) Ltd will require a Prospecting Right in terms of the Mineral and Petroleum Resources Development Act (MPRDA, Act No.28 of 2002). The Applicant is also required to obtain an Environmental Authorisation (EA) in terms of the National Environmental Management Act (NEMA, Act No. 107 of 1998) which involves the submission of a Basic Assessment Report (BAR). Singo Consulting (Pty) Ltd has been appointed by Favoured by Grace (Pty) Ltd to compile the BAR (this report) in support of the Prospecting Right application submitted by Favoured by Grace (Pty) Ltd, which in turn will be submitted to the DMRE for adjudication.

This BAR has been designed to meet the requirements for a BAR and Environmental Management Programme report (EMPr) as stipulated in the 2014 EIA Regulations promulgated under the NEMA. The adjudicating authority for this Application will be the Department of Mineral Resources and Energy (DMRE), and this report has been compiled in accordance with the applicable DMRE guidelines and reporting template.

The proposed Prospecting Right Area is situated on portion of portion 14 of the farm Middelbult 235 IR. The proposed area is situated approximately 4.16 km Southwest of Delmas town in Mpumalanga, the project area can be accessed through the gravel road that extents from the R555 provincial road.

A Prospecting Work Programme (PWP) has been developed to include both non-invasive and invasive prospecting activities. The target geological formation of the PWP is main Karoo supergroup. The geology of the study site is characterized by Vryheid Formation under Ecca group (coal).

The adjacent landowners requested to be registered as Interested and affected Parties, the land is utilized for:

- According to the land use map, the project area is dominated by cultivated land (def) with patches of natural vegetation. According to the Emakhazeni Local Municipality-Spatial Development Framework (SDF) (2015) natural vegetation refers to natural area which are not identified as CBAs or ESAs but which provide a range of ecosystem services from their ecological infrastructure.
- On the terrestrial biodiversity map, the project area is known as heavily modified. Heavily modified means that the area is transformed in such a way that the ecological

and biodiversity function have been lost to such a point that conservation can no longer occur

Adjacent landowners are concerned about their houses losing value because of the proposed prospecting application.

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LIST OF ABBREVIATIONS

BAR	**: Basic Assessment Report**
BID	**: Background Information Document**
CA	**: Competent Authority**
CBA	**: Critical Biodiversity Area**
DAFF	**: Department of Agriculture, Forestry and Fisheries**
DEFF	**: Department of Environmental, Forestry and Fisheries**
DMRE	**: Department of Mineral Resources and Energy**
DWS	**: Department of Water and Sanitation**
EA	**: Environmental Authorisation**
EAP	**: Environmental Assessment Practitioner**
EIA	**: Environmental Impact Assessment**
EIMS	**: Environmental Impact Management Services**
EMPr	**: Environmental Management Programme Report**
GIS	**: Geographic Information System**
I&AP	**: Interest and Affected Party**
MPRDA	**: Mineral and Petroleum Resources Development Act**
NEMA	**: National Environmental Management Act**
NEMWA	**: National Environmental Management Waste Act**
NWA	**: National Water Act**
PPP	**: Public Participation Process**
PRA	**: Prospecting Right Application**
PWP	**: Prospecting Works Programme**

IMPORTANT NOTICE

In terms of the Mineral and Petroleum Resources Development Act (Act 28 of 2002 as amended), the Minister must grant a prospecting right if among others the mining "will not result in unacceptable pollution, ecological degradation or damage to the environment and an environmental authorisation is issued".

Unless an Environmental Authorisation can be granted following the evaluation of an Environmental Impact Assessment and an Environmental Management Programme report in terms of the National Environmental Management Act (Act 107 of 1998) (NEMA), it cannot be concluded that the said activities will not result in unacceptable pollution, ecological degradation, or damage to the environment.

In terms of section 16(3)(b) of the EIA Regulations, 2014, any report submitted as part of an application must be prepared in a format that may be determined by the Competent Authority and in terms of section 17 (1) (c) the competent Authority must check whether the application conforms to the requirements of the EIA Regulations, any protocol or minimum information requirements relevant to the application as identified and gazetted by the Minister in a government notice or instruction or guidance provided by the competent authority to the submission of application.

It is therefore an instruction that the prescribed reports required in respect of applications for an environmental authorisation for listed activities triggered by an application for a right or a permit are submitted in the exact format of and provide all the information required in terms of this template. Furthermore, please be advised that failure to submit the information required in the format provided in this template will be regarded as a failure to meet the requirements of the Regulation and will lead to the Environmental Authorisation being refused.

It is furthermore an instruction that the Environmental Assessment Practitioner must process and interpret his/her research and analysis and use the findings thereof to compile the information required herein. (Unprocessed supporting information may be attached as appendices). The EAP must ensure that the information required is placed correctly in the relevant sections of the Report, in the order, and under the provided headings as set out below, and ensure that the report is

not cluttered with un-interpreted information and that it unambiguously represents the interpretation of the applicant.

Objective of the basic assessment process

The objective of the basic assessment process is to, through a consultative process—

(a) determine the policy and legislative context within which the proposed activity is located and how the activity
complies with and responds to the policy and legislative context;

(b) identify the alternatives considered, including the activity, location, and technology alternatives;

(c) describe the need and desirability of the proposed alternatives;

(d) through the undertaking of an impact and risk assessment process, inclusive of cumulative impacts which focused
on determining the geographical, physical, biological, social, economic, heritage, and cultural sensitivity of the sites and locations within sites and the risk of impact of the proposed activity and technology alternatives on these aspects to determine:

(i) the nature, significance, consequence, extent, duration, and probability of the impacts occurring to; and

(ii) the degree to which these impacts—

(aa) can be reversed;

(bb) may cause irreplaceable loss of resources; and

(cc) can be managed, avoided or mitigated;

(e) through a ranking of the site sensitivities and possible impacts the activity and technology alternatives will impose on the
sites and location identified through the life of the activity to—

(i) identify and motivate a preferred site, activity and technology alternative;

(ii) identify suitable measures to manage, avoid or mitigate identified impacts; and

(iii) identify residual risks that need to be managed and monitored.

PART A

SCOPE OF ASSESSMENT AND BASIC ASSESSMENT REPORT

1. Contact Person and Correspondence Address

a) Details of:

(i) The EAP (s) who prepared the report

Name of the Practitioner	Ms Valentine Mhlanga
Designation	EAP intern
Tel No.	+27 13 692 0041
Cell No.	+27 81 813 0654
Fax No.	+27 86 515 4103
Email	valentine@singoconsulting.co.za

(ii) Details of the EAP who reviewed the report.

Name of the Practitioner	Dr NK Singo (SACNASP: Earth Science Reg. No 400069/16)
Designation	Principal EAP (Reviewer)
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b) Expertise of the EAP (s)

The qualifications of the EAP

(With evidence attached as Appendix)

- **Ms Valentine Mhlanga**

  North-West University, BSc Hons in Environmental Sciences (Geography and Environmental Management).

- **Dr Kenneth Singo**

  University of Johannesburg, PhD (Applied Environmental Mineralogy & Geochemistry).

(Attach the EAP's curriculum vitae as Appendix)

c) Summary of the appointed consulting firm

In the year 2008, Singo Consulting (Pty) Ltd was established as an Independent Consulting Company focused to create opportunities within the Mining and

Environmental Industry. With time, Singo Consulting (Pty) Ltd has diversified its services, it provides high value Geological, Hydrological, Environmental, Cleaning and Rehabilitation specialized services to clients across a range of industries that are primarily natural resource based.

The company aims to be a consulting firm that communicates sound environmental services solutions. Singo Consulting (Pty) Ltd takes pride in the fact that it holds no equity in any project and is owned by the staff, enabling it to offer clients objective support on crucial issues.

2. Locality of the Overall Activity

Table 1 Location of the Overall Activity

Farm Name:	Portion of portion 14 Middelbult 235 IR
Application area (Ha)	266.199Ha
Magisterial district:	Delmas
Distance and direction from nearest town	Approximately 4.16 km Southwest of Delmas
21-digit Surveyor General Code for each farm portion	T0IR00000000023500014

2.1. Locality map and Reg 2.2 Map

(Show nearest town, infrastructure, land capability and topography of the proposed project area scale not smaller than 1:150000)

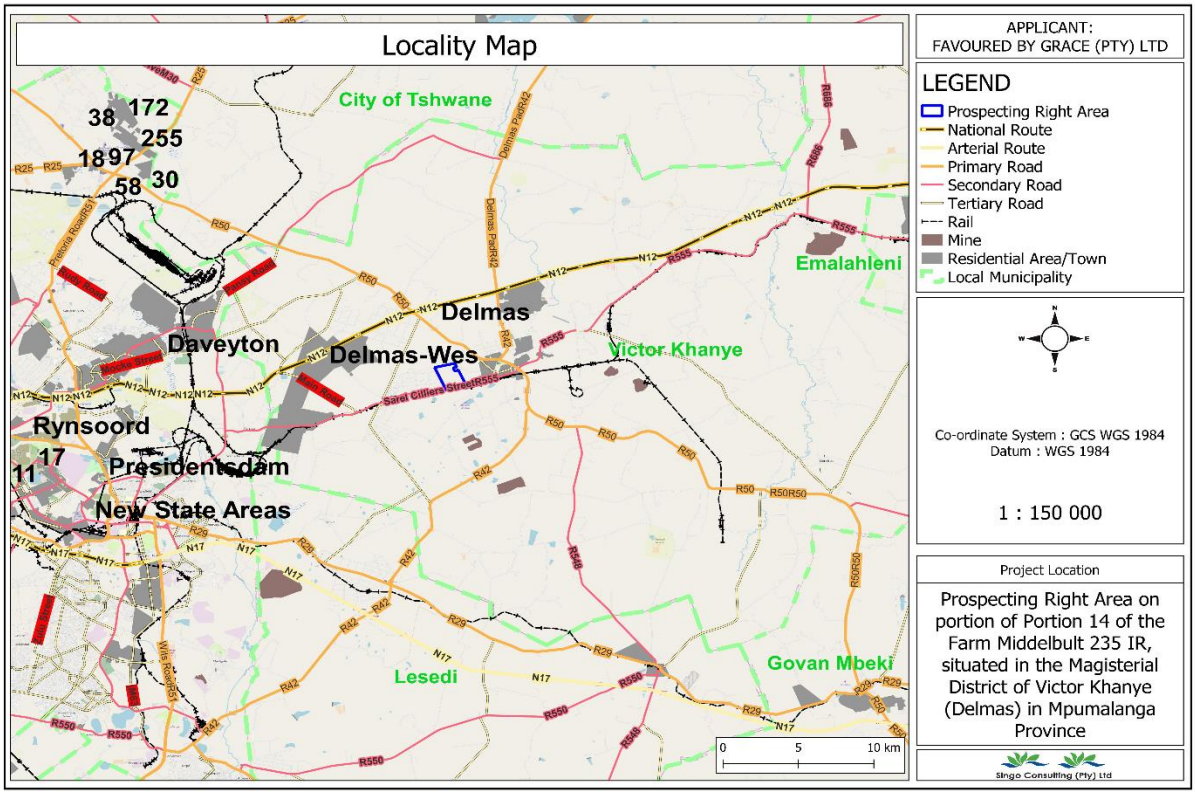


Figure 1: Locality map of the project area *(Singo Consulting, 2022)*

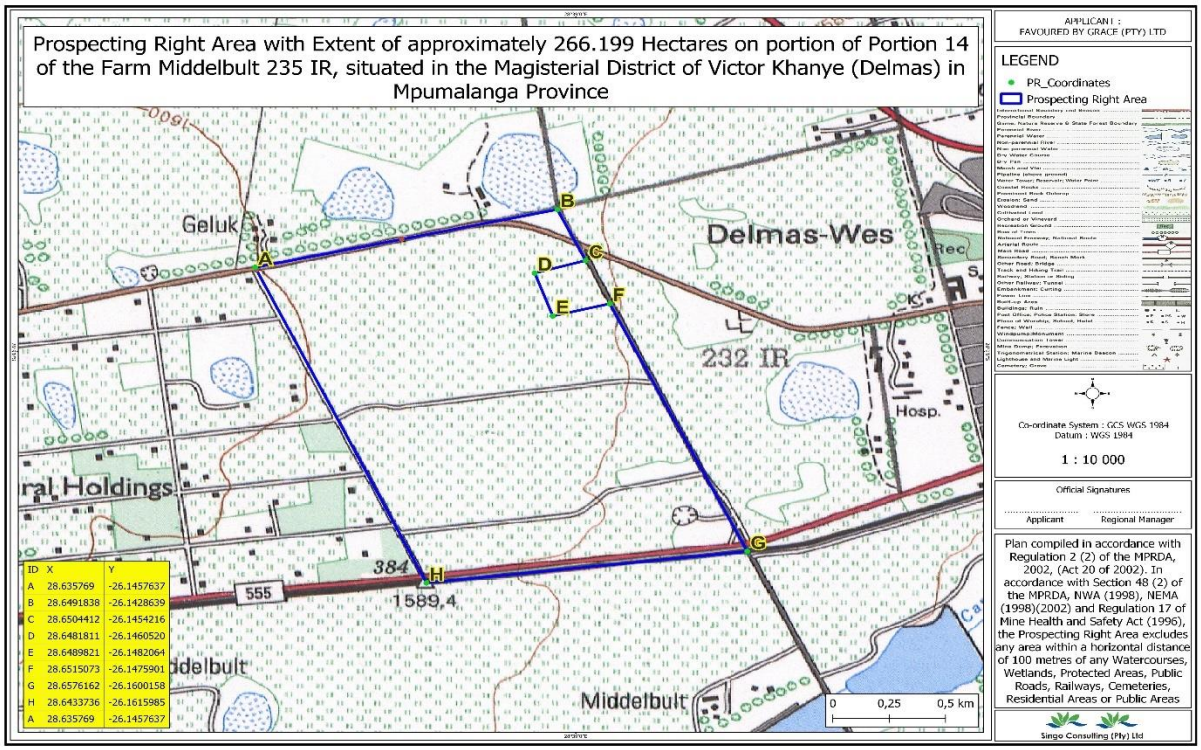


Figure 2: Reg 2.2 Map -26.1457637;28.635769 *(Singo Consulting, 2022)*

2.2. Description of the scope of the proposed overall activity

Provide a plan drawn to a scale acceptable to the competent authority but not less than 1: 10 000 that shows the location, and area (hectares) of all the aforesaid main and listed activities, and infrastructure to be placed on site.

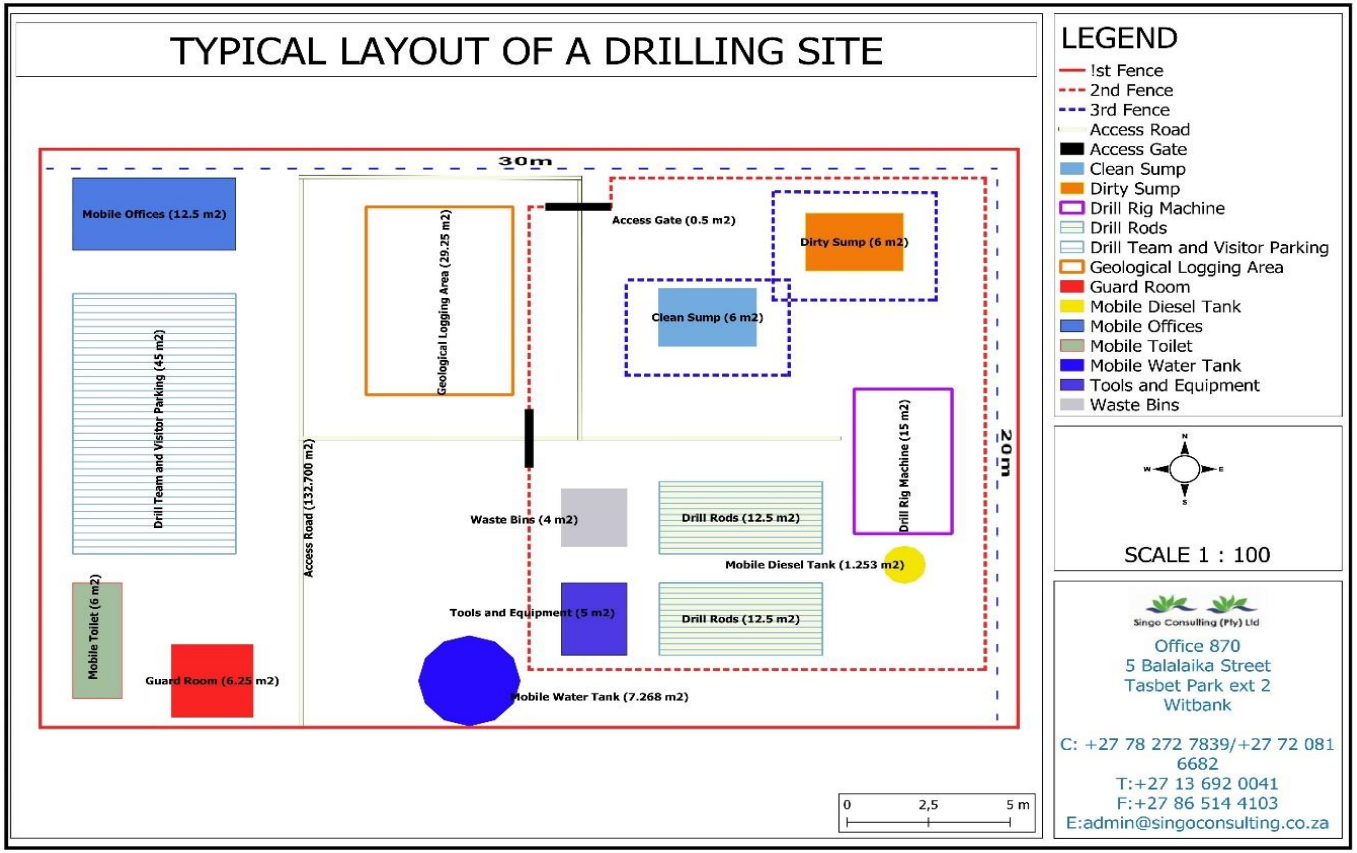


Figure 3: Typical layout plan of a drilling site (Singo Consulting, 2022)

Favoured by Grace (Pty) Ltd is applying for a Prospecting Right without bulk sampling, to prospect for Coal minerals on the aforementioned properties. The area demarcated for the prospecting covers an area of approximately 266.199 ha.

Coal

Coal is an organic sedimentary rock that forms from the accumulation and preservation of plant materials, usually in a swamp environment. Coal is a combustible rock and, along with oil and natural gas, it is one of the three most important fossil fuels. Coal has a wide range of uses; the most important use is for the generation of electricity. Coal forms from the accumulation of plant debris, usually in a swamp environment. To form the thick layer of plant debris required to produce a coal seam, the rate of plant debris accumulation must be greater than the rate of decay. Once a thick layer of plant debris is formed, it must be buried by sediments such as mud or sand. These are typically washed into the swamp by a flooding river. The weight of these materials compacts the plant debris and aids in its transformation into coal. About ten feet of plant debris will compact into just one foot of coal.
It can only occur under one of two conditions:

1) a rising water level that perfectly keeps pace with the rate of plant debris accumulation; or,

2) a subsiding landscape that perfectly keeps pace with the rate of plant debris accumulation.

2.3. Listed and specified activities

Table 2: Listed and specified activities

NAME OF ACTIVITY **(E.g., For prospecting -** drill site, site camp, ablution facility, accommodation, equipment storage, sample storage, site office, access route **etc…etc…etc. E.g. for mining**, - excavations, blasting, stockpiles, discard dumps or dams, Loading, hauling and transport, Water supply dams and boreholes, accommodation, offices, ablution, stores, workshops, plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc.)	Aerial extent of the Activity Ha or m²	LISTED ACTIVITY (Mark with an **X** where applicable or affected).	APPLICABLE LISTING NOTICE **GNR 517** on 11 June 2021	WASTE MANAGEMENT AUTHORISATION (Indicate whether an authorisation is required in terms of the Waste Management Act). **(Mark with an X)**
Prospecting Area	266.199 ha	**X**	GNR 517 Listing Notice 1, Activity 20.	Not required
Vegetation clearing	0.9 ha	**X**	Not Listed	
Drilling	0.9 ha	**X**	Not Listed	
Access roads	5217.5 m²	**X**	Not listed	
Mobile office	12,50 m²	**X**	Not Listed	
Mobile toilet	6,00 m²	**X**	Not Listed	
Access gate	0,5 m²	**X**	Not Listed	
Guard room	6,25 m²	**X**	Not Listed	
Drill rods	25,00 m²	**X**	Not Listed	
Geological logging area	29,25 m²	**X**	Not Listed	
Mobile water tank	7,265 m²	**X**	Not Listed	
Clean sump	6,00 m²	**X**	Not Listed	
Dirty sump	6,00 m²	**X**	Not Listed	
Drill rig machine	15,00 m²	**X**	Not Listed	
Tools and equipment	5,00 m²	**X**	Not Listed	

2.1 Description of the activities to be undertaken

Coal prospecting activities will be conducted over a period of five years in the following phases:

2.1.1 Phase 1A: Data collection and review.

This phase includes data collection and review of all available information relating to the project, such as property description, tenure and permitting, accessibility, climate, environmentally sensitive areas, historical work, and geology. A site visit will be conducted during this phase.

2.1.2 Phase 1B: Data review report and gap analysis.

This phase involves confirming adequacy of baseline project data available to support preparation of a Bankable Feasibility Study (BFS). Upon gap analysis completion, recommendations will be made to fill the shortfall in any technical or study area that may directly impact the quality of the Bankable Feasibility study. Phase 1A and 1B (combined) will be conducted for about 1–2 months.

2.1.3 Phase 2: Geology and resources

This phase includes drilling, geochemical sample analysis, data verification and mineral resource estimation according to international reporting codes, such as the South African Code for Reporting of Exploration Results, Mineral Resources and Mineral Reserves (SAMREC). Data acquisition and test work in the form of diamond, percussion, or directional drilling (for geochemical assay and metallurgical test work) is required to support the study. Once the geochemical analytical results have been obtained, the generation of a geological and resource model and resulting SAMREC-compliant (or similar) mineral resource estimate may be completed. The drilling program will include at least five boreholes (Table 2) mainly aimed at verifying the acquired historical data by obtaining reliable samples from different depths below surface. The three potential drilling methods are described in the following.

Diamond core drilling

Diamond core drilling comprises a drill bit studded with diamond, which is mounted on a cylindrical rotating shaft. A hydraulic or mechanical chuck holds the drill shaft and mounted drill bit firmly, allowing it to rotate at the desired speed. The feed frame applies the necessary force to exert the right pressure on the bit for effective cutting. The flush pump passes water or other flushing fluids down the rod string and past the core barrel and core bit. This cools the bit and carries the cutting up to the surface outside the drill rod, reducing friction between the drill string and the borehole wall. The bit cuts out a core of rock, which moves up into the core barrel until the barrel is filled. When full, the rod string is hoisted until the core barrel reaches the surface where it can be emptied.

Figure 4: Typical example of Diamond Core drill rig and drill bits.

Directional drilling

Directional drilling controls the borehole direction and deviation to a predetermined underground target, in this case the coal seam. Tools utilized in achieving directional wells includes a mud motor, specialized bit, and a bend near the bit. The bend directs the bit to different directions from the well bore axis when the entire string is not rotating; this is achieved by pumping drilling fluid through the mud motor, which, in turn, rotates the bit. Once the planned angle is achieved, the complete drill string is rotated. In coal prospecting, horizontal drilling is utilized. The well is drilled horizontally across the coal bed, at an angle that exceeds 800 degrees. In this type of drilling, core samples and strata thickness information can be obtained.

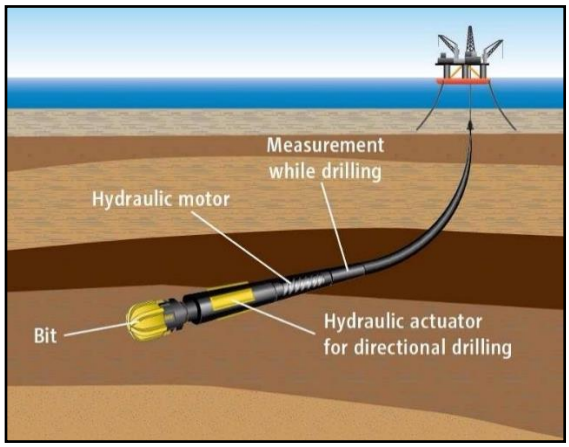


Figure 5: **A typical illustration of Directional drilling.**

Reverse circulation drilling

The Reverse Circulation (RC) drilling mechanism is a pneumatic reciprocating piston (known as a "hammer") driving a tungsten-steel drill bit. RC drilling utilizes much larger rigs and machinery and depths of up to 500 m are routinely achieved. RC drilling ideally produces dry rock chips, as large air compressors dry the rock out ahead of the advancing drill bit RC is achieved by blowing air down the rods, the differential pressure creating air lift of the water and cuttings in the inner tube of each rod. It reaches the bell at the top of the hole, then moves through a sample hose attached to the top of the cyclone. The drill cuttings travel around the inside of the cyclone until they fall through an opening at the bottom and are collected in a sample bag. Although RC drilling is air-powered, water is used to reduce dust, keep the drill bit cool, assist in pushing cutting back upwards, and when collaring a new hole.

Figure 6: A Reverse Circulation drill rig.

2.1.1 Phase 3: Topographic survey

This phase includes a topographic survey. A detailed Digital Elevation Model (DEM) with 2m accuracy contour levels is required (existing LIDAr survey results to 5cm in the xyz space with a 1cm ortho-image is available).

2.1.2 Phase 4: Geophysical investigations

This phase involves collection of sub-surface information. It was evident that the study area was underlain by two (2) lithostratigraphic units, namely the: Dwyka Group overlain by the Vryheid Formation of the Karoo Group; this will affirm the exact location of the coal with depths.

2.1.3 Phase 5: Mineral processing and metallurgical testing

This phase involves following standard procedures for Feasibility studies to obtain test work results to determine the Run of Mine (RoM) ore quality. RoM ore quality is needed to establish basic beneficiation plant design criteria and start with basic engineering, layout planning, preliminary tendering, and cost estimates of initial capital costs for each of the main components, production planning and operating cost estimates.

2.1.4 Phase 6: Reporting

This phase includes review, interpretation, peer review, conclusions and recommendations, and the compilation of the final BFS report signed off by the Competent Person. The Mineral and Ore Reserve Report produced during this phase, will be SAMREC-compliant.

Table 3: Summary of the drilling activities

Drilling method	Diamond drilling
Number of boreholes	15
Depth of boreholes	100m
Duration of drilling	A borehole takes about 2 days to complete; 15 will take at least 30 days.
Demarcated working area	0.9 ha for all 15 drilling sites
Total area to be disturbed	30*20=600m² 15 boreholes* 600m²=9000 m² 9000 m²÷10000=**0.9ha**

2.4. Description of the activities to be undertaken.

(Describe Methodology or technology to be employed, including the type of commodity to be prospected/mined and for a linear activity, a description of the route of the activity)

Background

Favoured by Grace (Pty) Ltd is applying for a Prospecting Right without bulk sampling, to prospect for Coal minerals on the aforementioned properties. The area demarcated for the prospecting covers an area of approximately 266.199 ha (refer to Figure 1)

Prospecting work will initially entail a high-level desktop study and potential desktop resource evaluation. This will include a data search of any previous drilling, trenching, sampling activities, exploration activities, existing maps, and relevant historical data. On successful completion of this desktop study, further possible drilling, trenching and resource estimations will be performed if the results warrant it.

Description of the prospecting methods to be undertaken:

- **<u>Planned non-invasive activities:</u>**

Desktop studies to be undertaken over the area would include studying of geological reports, prospecting data, plans/maps, aerial photographs, topography maps and any other related geological information about this area.

- Data processing and validation:

Data obtained during the drilling process needs to be processed and validated versus stratigraphic, structural, and analytical data received and correlated with surrounding boreholes in the reserve area.

- ❖ Electronic procession of borehole data
- ❖ Validation of lithological data versus analytical data.
- ❖ Stratigraphic correlation of Coal ore.

❖ Editing and correction of data on database.

- Lithofacies and Coal ore quality modelling:

Variations in a stratigraphic unit across the reserve area are generated and illustrated by contoured maps showing lateral trends of most significant properties. This is done by the utilization of computerized geological software. Detailed in situ reserve and quality determinations will then be possible through computer based modelling, and qualitative and quantitative calculations.

- Compilation of geology report:

Information obtained during the exploration phase together with computer generated information is compiled into a geological report.

- **Planned invasive activities:**

- Diamond drilling:

The drill rigs are truck-mounted and equipped with diesel driven engines to provide power to the drill. A truck fitted with a water tank will be used to provide the water supply for the drilling process. The drill site is not larger than 20m x 30m (600m²) and consists of a drill rig, water pump, caravan, and portable chemical toilet. Except for the sump required by the drill rig, no excavations will be required. The sumps are normally 6 m^2 and 50 cm (0.5 m) deep. It is always necessary to separate topsoil from the subsoils. The dimension of the borehole is NQ (±76 mm), and the average depth of the Coal ore reserve is estimated to be 100 m. On completion of the borehole, it is cemented from the bottom up. The only rehabilitation that will specifically be required is borehole capping and revegetation. Drill holes must be permanently capped as soon as is practicable. Those that will be left will only be after the landowner has requested to have some left for the purpose of abstracting water.

- **Pre-feasibility studies**

The commodity thickness distribution, lateral extent and quality will be determined through detailed borehole measurement and laboratory core analysis. Detailed in situ reserve and quality determinations will then be possible through computer based modelling, and qualitative and quantitative calculations.

A geological report (or Competent Person Report) will be compiled which entails all results obtained during the exploration phase. This will be done by the appointed Exploration Geologist.

2.1 Auxiliary Activities

2.1.1 Access roads

Access to the proposed prospecting area will be the gravel road that extents from R555 which extends from N12. There are pathways that exist within the project area which will be used to access the borehole locations. As a result, no new road(s) will be constructed. During site assessment the EAP undertook a thorough assessment in order to ensure that should the applicant have to reach an agreement on the roads which will be utilised, such an agreement is reached whilst ensuring that the area is not immersible impacted by the borehole positions. An agreement on access to the project area will be reached and agreed with the landowner.

Figure 7: Access roads to the proposed project areas

Water supply

The proposed drilling system utilizes air only, which ensures that only on-site workers will need water for drinking and general purposes. A temporary storage tank to provide drinking water and general use will be placed on site. Water will be purchased from the local water suppliers in water containers. Best practice guidelines will be implemented during prospecting activities to prevent contamination in the waterways.

Figure 8: Example of water storage tanks.

2.1.2 Ablution facilities

Portable toilets will be installed on site for ablution purposes, and they will be removed after the prospecting period.

Figure 9: An image showing a typical example of mobile toilets.

2.1.3 Temporary office area

A temporary shaded site office will be erected at the drill sites. No electricity will be generated on-site with generators. Meals will be provided to the staff and workers as no heating and/or cold storage facilities will be available. A shaded eating area will be provided.

Figure 10: Mobile offices.

2.1.4 Accommodation

Accommodation for staff and workers will not be provided on site, but in nearby towns around Delmas. Further accommodation will be arranged with farm owner where there are farmhouses. Night security staff will be employed once equipment has been established on site to ensure that the equipment's are always safe after use.

2.1.5 Blasting

As the Prospecting Work Programme (PWP) for this application does not carter for bulk sampling, thus no blasting will take place.

2.1.6 Storage of dangerous goods

During drilling activities, limited quantities of diesel fuel, oil and lubricants will be stored on site. The only dangerous goods that will be stored in any significant quantity is diesel fuel. Less than 30m^3 will be stored in above-ground diesel storage tanks.

Figure 11: Example of an above-ground diesel storage tanks

Table 4: Proposed prospecting phases and time frames.

Phase	Activity	Skill(s) required	Timeframe	Outcome	Timeframe for outcome	What technical expert will sign off on the outcome?
Phase1: Invasive Prospecting						
	Diamond drilling (5 boreholes) Sampling	Exploration Geologist Exploration Geologist	Month 1 (30 days)	Borehole core data coal samples Rock core samples Core analyses Rock core analyses	Month 1 Month 2 – 3	Exploration Geologist Laboratory analyst
Phase 1: Non-invasive Prospecting						
	Consultations with landowners	Land Tenure Specialist	Month 1	Legal Access Agreement	Month 1	Land Tenure Specialist
	Data processing and validation	Exploration Geologist	Month 7-8	Stratigraphic correct borehole data Analytical correct borehole data	Month 8 – 10 Month 8 - 10	Exploration Geologist /Database administrator Exploration Geologist /Database administrator
	Lithofacies and Coal quality modelling	Exploration Geologist	Month 10-12	Contour maps Reserve breakdown	Month 10-12	Exploration Geologist /Modeller
	Inspection/Consultation with landowners	Land Tenure Specialist /Drilling contractor	Month 5-6	Rehabilitation clearance certificate	Month 5 - 6	Land Tenure Specialist / Environmental officer
Phase 2: Invasive Prospecting						
	Diamond drilling (5 borehole)	Exploration Geologist	Month 13	Borehole core data Coal samples Rock core samples Core analyses Rock core analyses	Month 13 Month 13-14	Exploration Geologist Laboratory analyst
	Geophysical survey (Optional)	Geophysicist Exploration Geologist	Month 13-15	Lithology data Structural data	Month 13-14	Geophysicist
	Geohydrological survey (Optional)	Geohydrologist Exploration Geologist	Month 13-14	Borehole water yield Water samples	Month 17-20	Geohydrologist
Phase 2: Non-invasive Prospecting						
	Consultation with landowners	Mining Rights officer	Month 12	Legal Access Agreement	Month 12	Land Tenure Specialist

Phase	Activity	Skill(s) required	Timeframe	Outcome	Timeframe for outcome	What technical expert will sign off on the outcome?
	Data processing and validation	Exploration Geologist	Month 17-18	Stratigraphic correct borehole data Analytical correct borehole data	Month 20 – 22 Month 20 - 22	Exploration Geologist /Database administrator Exploration Geologist /Database administrator
	Lithofacies and coal quality modelling	Exploration Geologist	Month 22-24	Contour maps Reserve breakdown	Month 22-24	Exploration Geologist /Modeler
	Inspection/Consultation with landowners	Mining Rights officer	Month 16-17	Rehabilitation clearance certificate	Month 16 - 17	Land Tenure Specialist / Environmental officer
Phase 3: Invasive Prospecting						
	Diamond drilling (5 borehole)	Exploration Geologist	Month 25	Borehole core data Coal core samples Rock core samples Coal core analyses Rock core analyses	Month 25 Month 25-60	Exploration Geologist Laboratory analyst
	Directional drilling (Optional)	Exploration Geologist	Month 24-30	Lithological data	Month 24-60	Exploration Geologist
	Geophysical survey (Optional)	Geophysicist Exploration Geologist	Month 25-27	Lithology data Structural data	Month 25-60	Geophysicist
	Geohydrological survey (Optional)	Geohydrologist Exploration Geologist	Month 25-26	Borehole water yield Water samples	Month 29-60	Geohydrologist
Phase 3: Non-invasive Prospecting						
	Consultation with landowners	Mining Rights officer	Month 24	Legal agreement	Month 24	Land Tenure Specialist
	Data processing and validation	Exploration Geologist	Month 29-30	Stratigraphic correct borehole data Analytical correct borehole data	Month 32 – 60 Month 32 - 60	Exploration Geologist /Database administrator Exploration Geologist /Database administrator
	Lithofacies and Coal	Exploration Geologist	Month 34-36	Contour maps Reserve breakdown	Month 34-60	Exploration Geologist /Modeler
	Inspection/consultation with landowners	Land Tenure Specialist	Month 28-29	Rehabilitation clearance certificate	Month 28 - 60	Land Tenure Specialist / Environmental officer

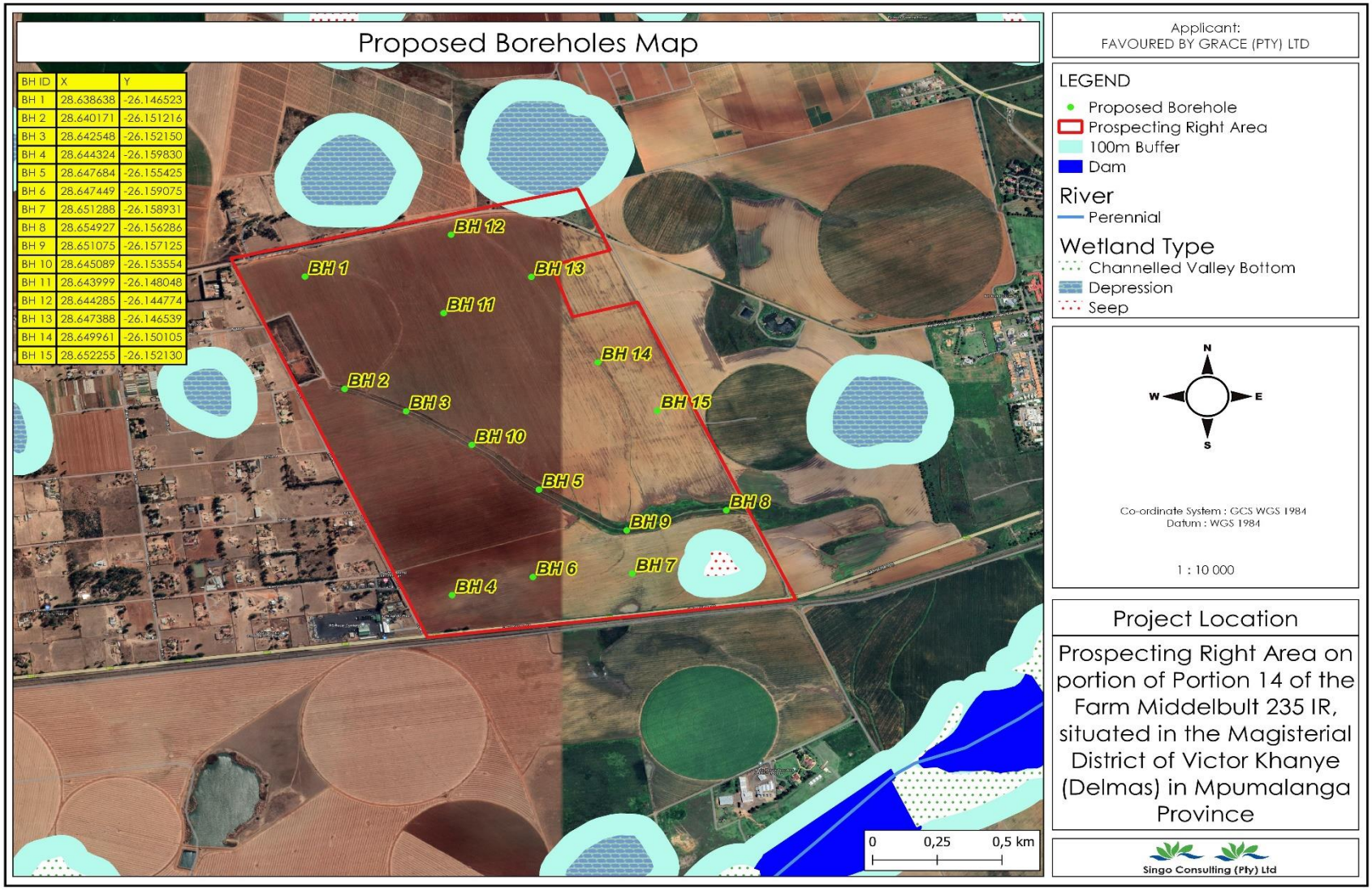


Figure 12: Proposed Boreholes Map of the proposed area

3. Policy and Legislative Context

Table 5: *Applicable Legislation to this application*

Applicable legislation and guidelines used to compile the report	Reference where applied	How does this development comply with and respond to the policy and legislative context
A description of the policy and legislative context within which the development is proposed, including an identification of all legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks and instruments that are applicable to this activity and are to be considered in the assessment process.		E.g. In terms of the National Water Act a Water Use License has/ has not been applied for.
Legislation		
NEMA, No 107 of 1998 (as amended) Listing Activity 20 of Listing Notice 1 in terms of Regulation 983 of 2014	Prospecting activities	In terms of the NEMA, No 107 of 1998 (as amended), an application for Environmental Authorization was submitted to the DMR. The application was acknowledged by the DMRE, DMRE ref: (**MP 30/5/1/1/2/17283 PR)** The DMRE, as the administrator, requests the submission of the Basic Assessment Report and EMP within 90 days of the acknowledgement letter. Favoured by Grace (Pty) Ltd appointed Singo Consulting (Pty) Ltd as an independent EAP to undertake the Basic Assessment Process associated with the Prospecting Right Application. All potential impacts of the proposed prospecting activities have been assessed. The EMPr includes mitigation measure implementation, which will apply throughout prospecting.
Constitution of South Africa, 1996 (Act No. 108 of 1996) [as amended] • Section 24; everyone has a right to: an environment that is not harmful to their health or wellbeing; and have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that:	Prospecting activities	An EMPr for proposed prospecting activities has been drafted to ensure that prospecting activities are conducted in such a manner that significant environmental impacts are avoided. Where significant impacts cannot be avoided, they will be minimized and mitigated to protect the environmental right of South Africans.

Applicable legislation and guidelines used to compile the report	Reference where applied	How does this development comply with and respond to the policy and legislative context
prevent pollution and ecological degradation promote conservation secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.		
MPRDA, No 28 of 2002 Section 16 (as amended)	Prospecting activities	The applicant submitted a Prospecting Right Application to the DMRE, which the DMRE accepted (**MP 30/5/1/1/2/17283 PR**). The conditions and requirements attached to the granting of the prospecting right will apply to the prospecting activities.
NEMA Biodiversity Act, 2004		The EMPr will regulate the applicant's implementation of biodiversity management measures. This is particularly relevant to all species of the Highveld Grassland family and Grassland Biome of South Africa (Low and Rebelo, 1996) in which the project area falls.
National Water Act (NWA), Act 36 of 1998	N/A	Water use license has not been applied for in this application. Water required for drilling activities will be bought from a local supplier and stored in a mobile water tanker. Appropriate dust extraction/ suppression equipment will be a condition imposed on the drill contractor for drill rigs.
National Environmental Management: Waste Act, Act 59 of 2008 (NEMWA) (as amended)	Management measures environmental awareness plan	Waste generation will be minimized by ensuring employees of the drilling contractor are subjected to the appropriate environmental awareness campaign before drilling commences. All waste generated during the drilling activities will be disposed of in a responsible legal manner. Proof of legal disposal will be maintained on site.
National Heritage Resources Act (NHRA), 25 of 1999	Management measures	Should archaeological artefacts or skeletal material be discovered in the area during development activities, activities will be stopped, and the South African Heritage Resource Agency (SAHRA) will be notified for an investigation and evaluation of the discoveries.
NEMA: Government Notice. 805 Companion Guideline on the Implantation of the Environmental Impact Assessment Regulations,	The application for Environmental Authorisation is submitted in terms of the	For the EMPR to be processed, an Environmental Authorization should be applied.

Applicable legislation and guidelines used to compile the report	Reference where applied	How does this development comply with and respond to the policy and legislative context
2010, October 2012.	EIA Regulations.	
Municipal plans and policies		
Victor Khanye Local Municipality Integrated Development Plan (IDP) 2017/22	Land use Socio-economic baseline information and need and desirability for the development.	The prospecting and mining of key minerals like coal is highlighted in the IDP. It also highlights the need to preserve the natural environment in the area by conducting mineral exploration that is minimally invasive to the environment.
Victor Khanye Local Municipality Spatial Development Framework	Land Use	The applicant acknowledges the need to maximize economic benefit from mining, industrial, business, agricultural and tourism development in the area and promote a climate for economic development in line with the municipal development frameworks.
Standards, guidance, and spatial tools		
South African National Biodiversity Institute (SANBI) Biodiversity GIS (bgis.sanbi.org)	Baseline environmental description.	Used during desktop research to identify sensitive environments in the prospecting rights area.
Seri Ed ESRI 2011. ArcGIS Desktop: Version 9.3.1. Redlands, CA: Environmental Systems Research Institute	Baseline environmental description and mapping.	Used during desktop research to map the locality and sensitive environments in the prospecting right area.

4. Need and desirability of the proposed activities.

(Motivate the need and desirability of the proposed development including the need and desirability of the activity in the context of the preferred location).

Prospecting activities do not offer many tangible benefits as it is the initial phase of mining. Prospecting precedes mining; however, it is during the prospecting phase that findings are established on whether the available reserves can be mined at an economic gain. It is understood that the mining plays a pivotal role in South African economy and boast a large labour force; hence a greater significance is placed on prospecting for realization of mining benefits.

Although prospecting activities are not labour intensive, approximately 10 people will be hired to assist with general activities. The services required can also be sourced locally depending on their availability thus growing the economy of Middelbult. With the existence of different mines located near the prospecting area collaboratively with the geological information, the area has the potential of the coal resources. Favoured by Grace (Pty) Ltd intends to start mining application once the prospecting activities have proven viable outcome.

Prospecting activities are needed to:

➢ Confirm and obtain additional information concerning potential targets through non-invasive (e.g., desktop studies) and minimally invasive (e.g., drilling) activities.

➢ Assess if the resource can be extracted in an environmentally, socially, and economically viable manner. Prospecting activities should prove that there are feasible minerals to allow mining, a new mine may be developed, which would generate extensive employment opportunities in an area where employment is required.

The Department of Environmental Affairs has released an updated Need and Desirability Guideline Document dated 2017. Need and desirability is based on the principle of sustainability, set out in the Constitution and in NEMA, and provided for in various policies and plans, including the National Development Plan 2030 (NDP).

Addressing the need and desirability of a development is a way of ensuring sustainable development – in other words, that a development is ecologically sustainable and socially and economically justifiable – and ensuring the simultaneous achievement of the triple bottom-line.

The concept of "need and desirability" relates to, amongst others, the nature, scale and location of development being proposed, as well as the wise use of land. While essentially, the concept of "need and desirability" can be explained in terms of the general meaning of its two components in which need primarily refers to time and desirability to place (i.e. is this the right time and is it the right place for locating the type of land-use/activity being proposed?), "need and desirability" are interrelated and the two components collectively can be considered in an integrated and holistic manner.

NEED AND DESIRABILITY OF THE PROPOSED PROJECT		
PART I: NEED		
Questions (Notice 792, NEMA, 2012)		Answers
1.	Is the land use associated with the activity being applied for considered within the timeframe intended by the existing approved SDF agreed to be the relevant environmental authority?	Yes. Prospecting right is an integral part of its rationale to make use of the abundant natural resources in the area to create strong, resilient, and prosperous district.
2.	Should the development, or if applicable, expansion of the town/area concerned in terms of this land use occurs here at this point in time?	The planned activities would allow this Prospecting right to extend mine life (LOM) for a large number of years and thus the benefits to local communities and South Africa as a whole for e.g., work provision and social upliftment would continue for a longer period if ever the valuable commodities are found and is valuable to the applicant then mining permit will be applied which further leads to mining activities.
3.	Does the community/area need the activity and the associated land use concerned? This refers to the strategic as well as local level.	According to the IDP (2021/2022), the unemployment rate of economically active population in Delmas as of 2016 was 21.6% according to Census. High unemployed is also due to the influx of job seekers into the municipal area. The Covid-19 pandemic has resulted to

		further job losses. The Favoured by Grace (Pty) Ltd prospecting will yield positive impact on the socio-economic conditions especially if it graduates to mining, by creating more jobs and providing developments to the local communities. In the last few years whilst Community Services has increased and Mining as an employer has grown and now contributes 12, 7%.
4.	Are the necessary services with adequate capacity currently available (at the time of application) or must additional capacity be created to cater for the development?	All infrastructure for services and capacity will be temporary and will be provided for the proposed prospecting/drilling activities. Temporary Infrastructure includes i.e., Mobile toilets, temporary shaded area (in a form of Gazebo). Drilling mechanisms to be employed will be of diamond core drilling. The road networks are fully intact, and the project will not have a major impact on road congestion. Thus, additional capacity does not need to be created for the development.
5.	Is this development provided for in the infrastructure planning of the municipality, and if not what will the implication be on the infrastructure planning of the municipality (priority and placement of the services and opportunity cost)?	The development is not provided for in the infrastructure planning of the municipality as it is a small development of local importance. Thus, the proposed project will not have any implications for the infrastructure planning, as no services and/or infrastructure needs to be upgraded or created to cater for this project. The proposed project will be making use of mobile structures.
6.	Is the project part of a national programme to address an issue of national concern or importance?	The mining sector is a significant contributor to the National GDP as well as a massive employer of people. The mining sector contributed 10% of the GVA of the local economy during 2010 and 1.2% towards the local economy's employment. The average annual GVA growth between 1995 and 2010 is -8.5% with an annual average formal employment contribution of 1.1% during the same period. In addition, The National Development Plan (NDP) Vision for 2030 offers a long-term perspective. It defines a desired destination and identifies the role different sectors of society need to play in reaching that goal. The main goals highlighted in the NDP which pertain to the proposed project are employment. Chapter 6 of

		the National Development Plan highlights an "inclusive rural economy", and the objectives of this plan are to create jobs in mining and industry and activating rural economies through service to small and micro mining.
PART II: DESIRABILITY		
7.	Is the development the best practicable environmental option for this land/site?	The project area lies on heavily modified land. The activities currently present on site have already had an impact on environmental management. The disturbed areas (drill sites) will be rehabilitated immediately after prospecting activities.
8.	Would the approval of this application compromise the integrity of the existing approved and credible IDP and SDF as agreed to by the relevant authorities?	Partially. The project is not completed in accordance with the Local Spatial Development Framework (SDF) and Integrated Development Plan (IDP) goals in terms of land use but does not compromise the credibility of these respective forward planning documents. In South Africa, as in Victor Khanye Local Municipality, unemployment is a big problem and mining permit should be able to provide continuity of existing employment in the mining permit area for a substantial period.
9.	Would the approval of this application compromise the integrity of the existing environmental management priorities for the area (e.g., as defined in EMFs), and if so, can it be justified in terms of sustainability considerations?	No, the integrity of the existing environmental management priorities for the area will not be compromised by this development.
10.	Do location factors favour this land use at this place? (This relates to the contextualization of the proposed land use on this site within its broader context).	The coalfield lithology comprises sediments of the Dwyka and Vryheid Formations of the coal-bearing Ecca Group, Karoo Supergroup thus providing the ideal geological formation for the presence of the mineral applied for. The current infrastructure suffices for the process of prospecting. The planned drilling activities does not need any new infrastructure.
11.	How will the activity of the land use have associated with the activity being applied for, impact on sensitive natural and cultural areas (built and rural/natural environment)?	As far as the Basic Assessment of the area of question, there is no known heritage or cultural significance. Should the standings change, the relevant authority will be notified immediately, and information will be included into the BAR & EMPr.

12.	How will the development impact on people's health and well-being? (E.g., In terms of noise, odours, visual character and sense of place, etc.)?	The impacts on well-being, following mitigation, will be as follows: • Visual: Medium to Low • Dust: Low • Noise: low •Vibrations: low Strick adherence to the recommendations & mitigation measures identified will be ensured.
13.	Will the proposed activity or the land use associated with the activity being applied for, result in unacceptable opportunity costs?	The mining industry in Mpumalanga has been a cornerstone of the economy for a long period of history. South Africa offers ongoing proof that mineral revenues can create sizeable benefits to the economy in countries where they are sourced. The applied commodities contribute significantly towards the Municipal's GDP.
14.	Will the proposed land use result in unacceptable cumulative impacts?	No. The proposed project has only been identified to have minimal cumulative impacts that can be mitigated to an acceptable level. The measures outlined in the EMP attached will serve as a method to keep the proposed project from having any serious ling term cumulative impacts on the receiving environment.

4.1. Motivation for the overall preferred site, activities, and technology

Geophysical surveys, and drilling are the only major methods used in exploring for deposits of this type and for resource definition and evaluation. The technology to be used cannot be replaced by any other methods thus these are the preferred activities.

There is no site or layout alternative as the property provides the ideal geological formation for the presence of the minerals applied for. The positioning of the boreholes is determined by the expected location of the mineral reserve.

There are no technology alternatives considered and the proposed site was identified as the preferred alternative due to the following reasons:

- The site offers the mineral sought after,
- Very little natural vegetation needs to be disturbed to establish the prospecting area (0.9 ha).

- The prospecting area can be reached by using the N12 National Road and R555 Provincial Road that passes through the proposed project area.
- No residual waste because of the prospecting activities will be produced that needs to be treated on site. The general waste produced on-site will be contained in sealed refuse bins to be transported to the local municipal landfill site.
- As maintenance and servicing of the equipment will be done at an off-site workshop the amount of hazardous waste to be produced at the site will be minimal and will mainly be because of accidental oil or diesel spillages.
- Contaminated soil will be removed to the depth of the spillage and contained in sealed bins until removed from site by a hazardous waste handling contractor to be disposed of at a registered hazardous waste handling site, more information will be discussed after the granting of the prospecting right.

4.2. Full description of the process followed to reach the proposed preferred alternatives within the site.

(NB!! – This section is about the determination of the specific site layout and the location of infrastructure and activities on site, having taken into consideration the issues raised by interested and affected parties, and the consideration of alternatives to the initially proposed site layout.)

Prospecting is conducted in phases, where the activities and location of drilling and trenching to sample soil are dependent on the previous phase. Therefore, the specific locations and extent of soil sampling and diamond core drilling, cannot be predetermined. The overall prospecting area is indicated see Figure 2, areas to be avoided in terms of sensitivities are also indicated on the sensitivity maps in this report. Positioning of invasive prospecting planned in the sensitive areas and buffer zones should be conducted with a suitably qualified ecologist to avoid and/or minimize the destruction of any sensitive vegetation or habitats occurring in these areas.

Details of all alternatives considered

With reference to the site plan provided as and the location of the individual activities on site, provide details of the alternatives considered with respect to:

(a) the property on which or location where it is proposed to undertake the activity;
(b) the type of activity to be undertaken;
(c) the design or layout of the activity;
(d) the technology to be used in the activity;
(e) the operational aspects of the activity; and

(f) the option of not implementing the activity)

Prospecting is conducted in phases, where the activities and location of drilling and trenching to sample soil are dependent on the previous phase. Therefore, the specific locations and extent of soil sampling and core drilling cannot be predetermined.

The following alternatives were investigated as feasible alternatives:

- The property on which or location where it is proposed to undertake the activity

The farm Middelbult 235 IR is located under Victor Khanye local municipality. The proposed area is located approximately 4.16 km Southwest of Delmas town. Figure 1 for the locality map.

- The type of activity to be undertaken

Main activity conducted to determine the Coal resources present in an economic feasible quality and quantity is drilling. The boreholes will be drilled with the diamond drilling method so the geologists can get a clear understanding of the actual subsurface setting of the lithologies. As outlined in the PWP all activities will be conducted in a phase approach whereby the execution of a new phase will depend on the results of the preceding phase. Prospecting activities will not compromise any future land uses on the study area as the applied activities are temporary.

- The design or layout of the activity

Since exploration is temporary in nature, no permanent structures will be constructed. Negotiations and agreements will be made with the farm owners to use any existing infrastructure like access roads.

- Portable ablution facilities will be used.
- Activities will be limited to the drilling of 15 boreholes to be determined by the geological formations found during prospecting.
- It is planned to use one rig for all drill holes.
- Rehabilitation will be closely controlled, and supervision will be focused.
- No changes to the layout are considered but with the geophysical survey information, the boreholes can be orientated to match the shape of the good quality of resource.

- The technology to be used in the activity

The technologies listed in the PWP have been selected as they are proven effective in the determination of resource viability within the proposed prospecting area. Some of the techniques employed in the non-invasive prospecting will include a literature survey, field reconnaissance/mapping, and geophysics survey of the geology, outcrops. Invasive technology alternatives have also been considered. It is hereby noted that the different phases and timeframes of the prospecting herein envisaged are, by their nature, dependent on the results obtained during the preceding phases of such prospecting. The proposals set out in the Prospecting Work Programme are therefore made on the basis that results obtained during the preceding phases may necessitate reasonable changes and adaptations to such proposals, which will be reported as prescribed.

- The option of not implementing the activity

If the Prospecting Right is not granted, the potential to identify viable mineral resources could be lost. Historical prospecting and mining activities have taken place in the vicinity of the proposed prospecting right area and as such the proposed prospecting activities represent a continuation of surrounding land uses. Additionally, it allows for marginal land impacted on by historical prospecting and mining activities to be re-introduced into the economy.

To sum up, prospecting work will initially include a high-level analysis of the desktop and a possible assessment of the desktop tools. This will involve scanning data for any past drilling, trenching, sampling, discovery, current maps, and related historical data. Computer research will include analysis of geological records, data prospecting, plans / maps, aerial photography, Maps of topography and any other associated geological details concerning a particular region.

More potential exploration, trenching and resource assessments will be conducted after successful completion of this desktop analysis, if the findings warrant it. The kind of intrusive prospecting practices is calculated based on the historical effectiveness of the methods to be used. Nonetheless, the prospecting activities are, as mentioned above, based on the preceding (non-invasive) step and thus no alternatives are suggested but rather a phased approach of trusted prospecting techniques.

Diamond core exploration is expected to be carried out step by step. During the desktop analysis, expected borehole depths will be calculated but drilling operations are projected to be carried out down to fairly shallow depths. Logging and sampling of the centre of the borehole will be done to assess the area. Trenching may include digging down trenches for excavation, using graders and excavators, to about 3 meters below the surface. Mapping of the trench walls will then be carried out.

2.1.1 Operational aspects of the activity

Drilling will be done over a period of 100 days, during daylight hours to minimize risk exposure. If necessary, drilling can be timed to occur during school terms or holidays, as may be required in certain instances by stakeholders. The time of implementing drilling activities during the day may be reconsidered in consultation with landowners. Ideally, drilling will occur continuously, until a hole is completed. If necessary, certain holes can be drilled for 12 hours during the day, with no drilling occurring during the night. Permanent services will not be rendered, including required water supply, electricity, or sewerage facilities. All infrastructure to be developed, including generators, portable toilets, and water tanks, will be mobile and temporary. Water will also be bought from a local supplier in the vicinity of the applied area.

2.1.2 Option of not implementing the activity

A construction must be ecologically sustainable, and must also promote socioeconomic growth, according to Section 24 of the Constitution. Failure to enforce the prospecting activities would result in the loss of mineral resource knowledge present on the study area. If commercially viable reserves exist in the study region and the applicant is unable to explore, the potential will be lost to use the reserves for future mining and brickmaking, i.e., the resources will be sterilized, and the resulting socio-economic benefits lost.

The prospecting practices proposed have the potential to adversely impact the natural ecosystem as well as the area's social climate. However, as demonstrated by the impact evaluation, these impacts can theoretically be avoided, reduced, mitigated, and controlled at low and very low levels.

5. Details of the Public Participation Process Followed

(Describe the process undertaken to consult interested and affected parties including public meetings and one on one consultation. The affected parties must be specifically consulted regardless of whether or not they attended public meetings. (Information to be provided to affected parties must include sufficient detail of the intended operation to enable them to assess what impact the activities will have on them or on the use of their land)

A Public Participation Process is undertaken for the proposed prospecting right application. The process is undertaken to ensure compliance with regards to the requirements in terms of

the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) [as amended] (MPRDA), the National Environmental Management Act, 1998 (Act No. 107 of 1998) [as amended], (NEMA), and Environmental Impact Assessment Regulations (2014) [as amended].

5.1. Activities undertaken for the Public Participation Process (PPP)

This section of the report provides an overview of the tasks undertaken for the PPP to date. All PPP undertaken is in accordance with the requirements of the NEMA requirements and EIA Regulations (2014) [as amended]. It further provides an outline of the next steps in the PPP and makes recommendations for tasks to be undertaken during the environmental assessment phase of the environmental authorization process.

The PPP conducted for the proposed prospecting project to date include:

- **Identification of key Interested and Affected Parties (affected and adjacent landowners) and other stakeholders (organs of state and other parties)**

Public Participation is the involvement of all parties who are either potentially interested and / or affected by the proposed development. The principal objective of public participation is to inform and enrich decision-making. This is also its key role in this Basic Assessment process.

Interested and Affected parties (I&APs) representing the following sectors of society have been identified:

- National, provincial and local government;
- Industry and mining;
- Agriculture, including local landowners (affected and adjacent);
- Tourism;
- Community Based Organisations;
- Non-Governmental Organisations;
- Water bodies;
- Commerce; and
- Other stakeholders.

FORMAL NOTIFICATION OF THE APPLICATION TO INTERESTED AND AFFECTED PARTIES (INCLUDING ALL AFFECTED AND ADJACENT LANDOWNERS) AND OTHER STAKEHOLDERS

The Basic Assessment Report will be submitted for review to the Competent Authority, commenting authorities, non-governmental organizations (NGOs), landowners, surrounding

property owners and other identified stakeholders. Comments received will be recorded and are reflected in this Final Basic Assessment Report. The detailed public participation process and the Consultation Report.

The project timelines have been developed on the section below:

- **Announcement of the project**: Friday the 15th of July 2022
- **Stakeholder engagement and consultation**: the 15th of July 2022- the 15th of August 2022
- **Review of Draft BAR & EMPr**: the 16th of August 2022- the 15th of September 2022

The benefits of the online stakeholder engagement platform include:

- Ability to create a dedicated project-specific online platform to enable easy access to project-related information.
- Ability to reach a wider audience, allowing more widespread consultation for major infrastructure projects.
- Allowing stakeholders and I&APs the opportunity to engage on a project without leaving their office or home.
- Enabling stakeholders and I&APs to register their interest in a project (for inclusion on the project database), and automatically gaining access to comprehensive project documentation.
- Enabling the EAP to maintain a complete database of I&APs through maintaining a record of persons accessing the online stakeholder consultation platform.
- Enabling the EAP and stakeholders/I&APs to meet virtually.

I&APs were consulted as per the planned timeline to forward their comments.

Engagement of I&APs was done through publishing of **newspaper**, **site notice**, **emails**, **one-on-one meeting**, and **phone calls**. The landowner was identified through windeed search.

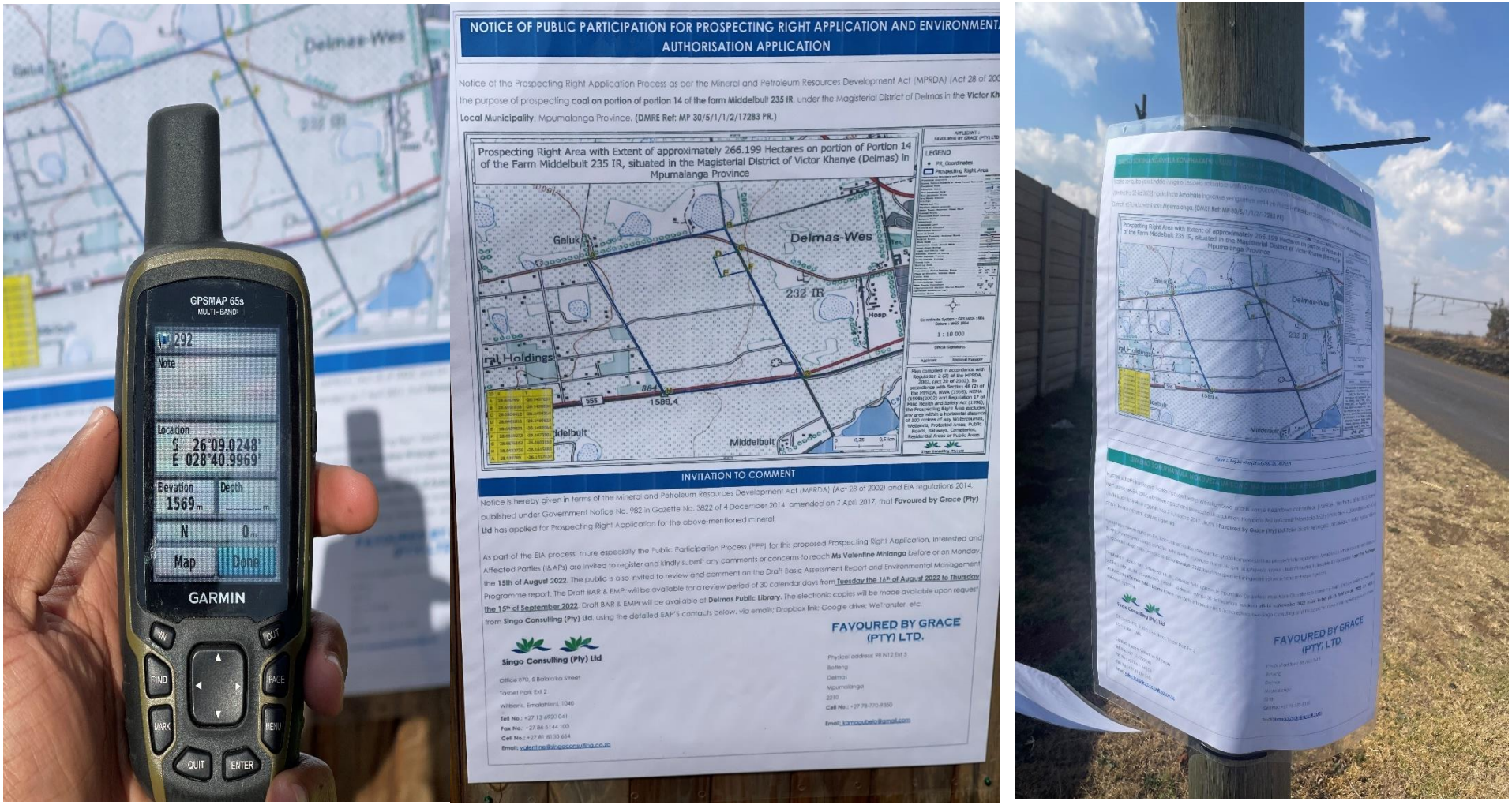


Photo 1: Site notices placed

Newspaper publication on Streeknuus/news on the 15th of July 2022

15 JULY 2022 | Streeknuus/news

EDUCATION 5

LAERSKOOL DU PREEZ VAN WYK

KULTUUR

Laerskool du Preez van Wyk hou opedag vir graad 1's. *Foto: Verskaf*

Dupieland hou opedag vir Dwergies. *Foto: Verskaf*

Dupieland hou opedag

Laerskool Du Preez van Wyk het die Dwergie en Graad 1 opedag op Saterdag, 11 Junie aangbied. Daar is geselsies aangeknoop, gelag, gesigte geverf en heerlike warm pannekoek geëet.

Voor is Irene Janse van Rensburg en Rosemarie Greeff. Agter is Christine Joubert, Elmarie van den Berg, Carla Heyneke, Cristel Vermeulen en Chamé Smit. *Foto: Verskaf*

Laerskool Rayton

Rayties vir Blou Bulle gekies

Dié rugbyspelers van Laerskool Rayton is vir die Blou Bulle gekies. Tumisho Nkadimeng is vir die 0/12B-span gekies en Ntando Malobola vir die 0/13A-span wat aan die Cravenweek gaan deelneem. *Foto: Verskaf*

NOTICE OF PUBLIC PARTICIPATION FOR PROSPECTING RIGHT AND ENVIRONMENTAL AUTHORISATION APPLICATION

ISIZULU

Isaziso semqabe yokuLindela ilungelo Lesicelo sokuhlola umhlaba ngokoMthetho Wezokumbiwa phansi kanye Nezimbiwa noPhethiloli (I-MPRDA) (Umthetho 28 ka 2002) ngokuthola **Amalahle** ingxenye yengxenye ye-14 ye polazi I-**Middelbult 235 IR,** esendaweni yase **Delmas Magisterial District, eSifundazweni** sase **Victor Khanye, Delmas Mpumalanga.**

ISIMEMO SOKUPHAWULA NOKUVEZA IMIBONO MAYELANA NALE APPLICATIONI

Ngalesi sikhathi kunikezwa isaziso ngokoMthetho Wezokumbiwa phansi kanye Nezimbiwa noPhethiloli (I-MPRDA) (Umthetho 28 ka 2002) kanye nemigomo ye-EIA 2014, eshicilelwe ngaphansi kwesaziso sikaHulumeni Inombolo 982 kuGazethi Inombolo 3822 yomhla ziyi-4 kuZibandlela wezi-2014 ukuthi kuchitshiyelwe ngomhlaka 7 kuMbasa 2017 ukuthi I- **Favoured by Grace (Pty) Ltd** ifake isicelo selungelo Lokuhlola umhlaba ngokumbiwa phansi kwale minerali eshiwo ngenhla **DMRE Ref MP 30/5/1/1/2/ 17283 PR.**

Njengengxenye yenqubo ye-EIA, ikakhulukazi inqubo yokubamba iqhaza komphakathi kule phrojekthi ehlongozwayo, Amaqembu Athintekayo nanentshisekelo (IAPs) ayamenywa ukuba abhalise futhi alethe ngomusa noma yikuphi ukuphawula noma ukukhathazeka kufinyelele kuNkosazane **Valentine Mhlanga** kungakadluli uMgqibelo, umhla zili-**15 kuNcwaba 2022**, kusetshenziswa imininingwane yokuxhumana enikezwe ngezansi.

Umphakathi ubuye futhi umenywe ukuthi ubukeze futhi uphawule ngombiko kuDraft Basic Asse ssment Report (DBAR) kanye ne-Environmental Management Programme Report (EMPr). Umbiko oyilwayo we-EMPr uzotholakala ukuthi ubuyekezwe isikhathi sezinsuku ezingu-30 zekhalenda kusukela zili-**16 kuNcwaba 2022 kuze kube zili-15 kuMandulo 2022. Lo mbiko uzotholakala eDelmas Public Library.**

Amazwana nge-DBAR & EMPr kufanele athunyelwe **ngaphambi komhla ziyi-15 kuSepthemba 2022.**

Ukuthola eminye imininingwane noma ukubhalisa njengeQhlangano Enentshisekelo noma Ethintekayo, sicela uthinte: -

ENGLISH

Notice of the Prospecting Right Application Process as per the Minerals and Petroleum Resources Development Act (MPRDA) (Act 28 of 2002) for the prospecting of Coal on portion of portion 14 of the Farm **Middelbult 235 IR,** situated in the **Magisterial District** of **Victor Khanye, Delmas, Mpumalanga Province.**

INVITATION TO COMMENT

Notice is hereby given in terms of the Mineral and Petroleum Resources Development Act (MPRDA) (Act 28 of 2002) and EIA regulations 2014, published under Government Notice No. 982 in Gazette No. 3822 of 4 December 2014, amended on 7 April 2017, that **Favoured by Grace (Pty) Ltd** has applied for a Prospecting Right for the above-mentioned mineral with **DMRE Ref: MP 30/5/1/1/2/17283 PR.**

As part of the EIA process, more especially the public participation process for this proposed project, Interested and Affected Parties (I&APs) are invited to register and kindly submit any comments or concerns to reach **Ms Valentine Mhlanga** by no later than Monday, the **15th of August 2022,** using the contact details provided below. The public are also invited to review and comment on the Draft Basic Assessment Report (DBAR) and Environmental Management Programme Report (EMPr). The Draft BAR EMPr will be available for review for 30 days calendar period commencing on **Tuesday the 16th of August 2022 to Thursday the 15th of September 2022.** This report will be available at **Delmas Public Library.**

Comments on the DBAR & EMPr should be submitted **no later** than the **15th of September 2022.**

For more information, to register as Interested or Affected Party, please contact: -

CONSULTANT

Singo Consulting (Pty) Ltd

Physical address: Office No. 870, 5 Balalaika Street, Tasbet Park Ext. 2, eMalahleni, 1040
Contact person: Valentine Mhlanga
Tel No: 013 692 0041
Cell No: 081 813 0654
Fax No: 086 514 4103
Email: valentine@singoconsulting.co.za

APPLICANT

FAVOURED BY GRACE (PTY) LTD.

Physical address: 98 N12 Ext 5 Botleng, Delmas, Mpumalanga, 2210

Contact person: Ms Mildred Mphali
Tel: 078 770 9350
Email: kamagubela@gmail.com

Figure 13: Newspaper publication (15 July 2022)

WinDeed Database D/O Property

IR, MIDDELBULT, 235, 14, PRETORIA

Lexis® WinDeed

Any personal information obtained from this search will only be used as per the Terms and Conditions agreed to and in accordance with applicable data protection laws including the Protection of Personal Information Act, 2013 (POPI), and shall not be used for marketing purposes.

SEARCH CRITERIA			
Search Date	2022/07/08 15:49	Farm Number	235
Reference	-	Registration Division	IR
Report Print Date	2022/07/08 15:54	Portion Number	-
Farm Name	-	Remaining Extent	NO
Deeds Office	Pretoria	Search Source	WinDeed Database

PROPERTY INFORMATION			
Property Type	FARM	Diagram Deed Number	T001648/942
Farm Name	MIDDELBULT	Local Authority	DELMAS LOCAL MUNICIPALITY
Farm Number	235	Province	MPUMALANGA
Registration Division	IR	Remaining Extent	NO
Portion Number	14	Extent	271.4888H
Previous Description	-	LPI Code	T0IR00000000023500014

OWNER INFORMATION (1)			
KALLIE-MADEL TRUST			Owner 1 of 1
Company Type	TRUST	Document	T109971/2000
Registration Number	1327/1990	Microfilm / Scanned Date	2000 0912 3443
Name	KALLIE-MADEL TRUST	Purchase Price (R)	2 171 904
Multiple Owners	NO	Purchase Date	2000/07/19
Multiple Properties	NO	Registration Date	2000/08/31
Share (%)	-		

ENDORSEMENTS (2)				
#	Document	Institution	Amount (R)	Microfilm / Scanned Date
1	VA23616/2000	JOOS DU PLESSIS LINDIE TRUST	Unknown	2000 0912 3438

0861 946 333
windeed.support@lexisnexis.co.za
search.windeed.co.za | www.windeed.co.za

ENDORSEMENTS (2)				
#	Document	Institution	Amount (R)	Microfilm / Scanned Date
2	IR,235,14	-	Unknown	-

HISTORIC DOCUMENTS (2)				
#	Document	Institution	Amount (R)	Microfilm / Scanned Date
1	T85389/1988	JOOS DU PLESSIS LINDIE TRUST	586 659	2003 0516 2533
2	T22747/1977	JOOS DU PLESSIS LEWENDEHAWE	Unknown	1989 0183 0115

CONSULTATION AND CORRESPONDENCE WITH I&AP'S AND STAKEHOLDERS

All I&AP registrations and comments that are received from stakeholders are formally recorded in the Comments and Responses Report. *Refer to Appendix G for comments and responses.*

Draft Basic Assessment Report (BAR) and Environmental Management Programme (EMPR)

The Draft BAR and EMPR were herewith released for a period of 30 days from 16th of August 2022 to 15th of September 2022.

Hard copies of the Draft BAR and EMPR will be submitted to all organs of state and relevant authorities who have requested for them. Electronic copies will be made available upon request from Singo Consulting (Pty) Ltd, using the detailed EAP'S contact's, via emails; Dropbox link; Google drive; WeTransfer, Singo Consulting (Pty) Ltd website (www.singoconsulting.co.za), etc. Refer to Appendix 5.5 for proof of notification of the basic assessment report review period and submission to relevant parties.

NEXT PHASES OF THE PUBLIC PARTICIPATION PROCESS

All comments received from I&APs and organs of state and responses sent will be included in the final BAR and EMPR to be submitted to the Competent Authority (CA).

Once the BAR and EMPR are submitted, the CA will have 107 days to reach a decision on the application. Thereafter the registered I&APs will be notified of the CA's decision.

5.1 List of Authorities Identified and Notified

The following authorities have been identified and notified of the proposed Prospecting right application project:

- Victor Khanye Local Municipality.
- Delmas Public Library.
- Mpumalanga Department of Rural, Environmental and Agricultural Development.
- Mpumalanga Department of Water and Sanitation.
- Mpumalanga Department of Rural Development and Land Reform.
- Mpumalanga Department of Agriculture.
- Mpumalanga Department of Agriculture, Forestry and Fisheries.
- Mpumalanga Department of Mineral Resources and Energy.
- National Department of Environmental Affairs.
- Mpumalanga Tourism and Park Agency.
- South African National Roads Agency Ltd (SANRAL).
- Eskom SOC Limited.

5.2. Summary of issues raised by I&APs

(Complete the table summarizing comments and issues raised, and reaction to those responses)

Table 5: Summary of issues raised

Interested and Affected Parties List the names of persons consulted in this column, and Mark with an X where those who must be consulted were in fact consulted		Date Comments Received	Issued Raised	EAPs response to issues as mandated by the applicant	Section and paragraph reference in this report where the issues and or response were incorporated
AFFECTED PARTIES					
Landowners/s					
Portion of portion 14	**X**	27/07/2022 (Face to face)	• Requested that we enquire with [redacted] and shared his contact details	• Landowner notification letter and BID was sent to [redacted] via email • The EAP further explained the proposed project.	See **Appendix *4***
[redacted]		08/08/2022 (Face to face)	• Received a phone call from [redacted] on the 12th of August 2022 stating that he has forwarded the documents to their representative/attorney, [redacted] and that they will be in contact	• Visited [redacted]'s office, unfortunately he was unavailable, but the BID, Regulation Map, Windeed Search and Landowner notification	

Interested and Affected Parties List the names of persons consulted in this column, and Mark with an X where those who must be consulted were in fact consulted		Date Comments Received	Issued Raised	EAPs response to issues as mandated by the applicant	Section and paragraph reference in this report where the issues and or response were incorporated
			regarding the proposed project.	letter was shared with the receptionist,	
SANRAL **Portion of portion 14**			• No issue raised	• BID and PR co-ordinates were shared via email on the 15th of July 2022.	See **Appendix *4***
Adjacent Landowners					
	X	27/07/2022 (Face to Face)	• Requested to also have the BID shared via email.	• EAP shared the hardcopy of the BID on the 27th of July 2022,	See

Interested and Affected Parties List the names of persons consulted in this column, and Mark with an X where those who must be consulted were in fact consulted		Date Comments Received	Issued Raised	EAPs response to issues as mandated by the applicant	Section and paragraph reference in this report where the issues and or response were incorporated
			• Is the proposed site not to close to residential areas? • What will the impact be on groundwater should they start mining, seeing that many of the plots rely on boreholes for water supply?	further explained the project as per BID then also shared the BID via email on the 28th of July 2022. • A response letter was shared with [redacted] on the 3rd of August 2022. regarding his comments.	**Appendix *4***
[redacted]		20/07/2022 (Face to Face)	• Will register as an I&AP and also gave directions as to where to find the landowner.	• EAP shared the hardcopy of the BID on the 20th of July 2022, further explained the project as per BID.	
[redacted]		26/07/2022 (Face to Face)	• Will register as an I&AP.	• EAP shared the hardcopy of the BID on the 26th of July 2022, further explained the project as per BID then also shared the BID via email on the 28th of July 2022.	
Lawful occupiers of the land					
Not Applicable					

Interested and Affected Parties List the names of persons consulted in this column, and Mark with an X where those who must be consulted were in fact consulted		Date Comments Received	Issued Raised	EAPs response to issues as mandated by the applicant	Section and paragraph reference in this report where the issues and or response were incorporated
Local Municipality					
 **Department of Environment and Waste Management** [redacted]	**x**	26/07/2022 (Face- face) [redacted] was on leave on the day but consulted him telephonically via his secretary [redacted] t the Victor Khanye Local Municipality. 27/07/2022 (Email) 15/07/2022 (Email)	• Please provide us with BID for this proposed project, so that we can make informed comments. No issues were raised No issues were raised	• The BID was submitted to Department on the 26th of July 2022. • BID together with a consultation email was sent on the 27th of July 2022. • BID together with a consultation email was sent on the 15th of July 2022.	See **Appendix *5***
Local Library					

Interested and Affected Parties List the names of persons consulted in this column, and Mark with an X where those who must be consulted were in fact consulted		Date Comments Received	Issued Raised	EAPs response to issues as mandated by the applicant	Section and paragraph reference in this report where the issues and or response were incorporated
Delmas Public Library	**X**	26/07/2022 (Face to face)	• The Librarian Signed for the BID.	• EAP submitted the BID to the local Library on the 26th of July 2022.	See **Appendix *5***
Community					
Ward Counsellor		03/08/2022 (Email)	No issues were raised	BID together with a consultation email was sent on the 3rd of August 2022.	See **Appendix *5***
Organs of state (Responsible for infrastructure that may be affected Roads Department, Eskom, Telkom, DWA					
SANRAL SOUTH AFRICAN NATIONAL ROADS AGENCY SOC LTD BUILDING SOUTH AFRICA THROUGH BETTER ROADS	**x**	15/07/2022 (Email)	• No issue raised.	• BID, Reg 2.2 Map PR co-ordinates together with a consultation email was sent on the 15th of July 2022. •	See **Appendix *5***

Interested and Affected Parties List the names of persons consulted in this column, and Mark with an X where those who must be consulted were in fact consulted		Date Comments Received	Issued Raised	EAPs response to issues as mandated by the applicant	Section and paragraph reference in this report where the issues and or response were incorporated
	X	15/07/2022 (Email)	• No issues were raised.	• BID, Reg 2.2 Map and PR co-ordinates together with a consultation email was sent on the 15th of July 2022.	See **Appendix *5***
		15/07/2022 (Email)	• No issues raised	• BID together with a consultation email was sent on the 15th of July 2022.	
	X	15/07/2022 (Email)	• No issues raised	• BID together with a consultation email was sent on the 15th of July 2022.	See **Appendix *5***

Interested and Affected Parties List the names of persons consulted in this column, and Mark with an X where those who must be consulted were in fact consulted	Date Comments Received	Issued Raised	EAPs response to issues as mandated by the applicant	Section and paragraph reference in this report where the issues and or response were incorporated
	15/07/2022 (Email) 15/07/2022 (Email) 15/07/2022 (Email)	• No issues raised • No issues raised • Kindly register the Department of Agriculture, Land Reform and Rural Development as an interested and affected party.	• BID together with a consultation email was sent on the 15th of July 2022. • BID together with a consultation email was sent on the 15th of July 2022. • BID together with a consultation email was sent on the 15th of July 2022.	
water & sanitation Department: Water and Sanitation REPUBLIC OF SOUTH AFRICA	15/07/2022 (Email) 11/08/2022	• No issue raised • No issue raised	• BID together with a consultation email was sent on the 15th of July 2022. • BID together with a consultation email was	See **Appendix *5***

Interested and Affected Parties List the names of persons consulted in this column, and Mark with an X where those who must be consulted were in fact consulted		Date Comments Received	Issued Raised	EAPs response to issues as mandated by the applicant	Section and paragraph reference in this report where the issues and or response were incorporated
				sent on the 11th of August 2022.	
environmental affairs Department: Environmental Affairs REPUBLIC OF SOUTH AFRICA		15/07/2022 (Email)	• No issue raised	• BID together with a consultation email was sent on the 15th of July 2022.	See **Appendix *5***
Mpumalanga TOURISM AND PARKS AGENCY	**X**	15/07/2022 (Email) 01/08/2022 (Postnet)	• Sensitivity maps were shared with the EAP. • No issues were raised.	• Email requesting sensitivity of the area was sent on the 15th of July 2022 with attached Reg 2.2 Map • The BID was couriered via Postnet on the 1st of August 2022.	See **Appendix *5***

Interested and Affected Parties List the names of persons consulted in this column, and Mark with an X where those who must be consulted were in fact consulted		Date Comments Received	Issued Raised	EAPs response to issues as mandated by the applicant	Section and paragraph reference in this report where the issues and or response were incorporated
agriculture, forestry & fisheries Department: Agriculture, Forestry and Fisheries REPUBLIC OF SOUTH AFRICA		15/07/2022 (Email)	• No issues raised.	• BID together with a consultation email was sent on the 15th of July 2022.	See **Appendix *5***
OTHER INTERESTED AND AFFECTED PARTIES					
Daybreak FARMS AFGRI POULTRY PROPRIETARY LIMITED T/A DAYBREAK FARMS		19/07/2022 (Email)	• No issue raised	• BID together with a consultation email was sent on the 19th of July 2022.	See **Appendix *5***

Interested and Affected Parties List the names of persons consulted in this column, and Mark with an X where those who must be consulted were in fact consulted		Date Comments Received	Issued Raised	EAPs response to issues as mandated by the applicant	Section and paragraph reference in this report where the issues and or response were incorporated
SAHRIS https://sahris.sahra.org.za/		21/07/2022 (Website)	• No issue raised	• . BID was uploaded on the 21st of July 2022.	See **Appendix *5***
		03/08/2022 (Email)	• Why next to residential area? • What about the air pollution and noise pollution, blasting etc? • What about damages to our houses due to blasting etc? • This will severely decrease house values	• A response letter was sent to [redacted] on the 3rd of August 2022.	

6. The Environmental attributes associated with alternatives

(The environmental attributes described must include socio-economic, social, heritage, cultural, geographical, physical, and biological aspects)

6.1. The Environmental attributes associated with the alternatives

Baseline Environment

6.1.1. Locality

The proposed Prospecting Right Area is situated over all portion of portion 14 of Middelbult 235 IR situated approximately 4.16 km Southwest of Delmas under the Victor Khanye local municipality project area can be accessed through the gravel road that extends from R555 road (Provincial Road which extends from N12 (National Road). See Figure *1*above for the locality map.

Type of environment affected by the proposed activity.

(It's current geographical, physical, biological, socio- economic, and cultural character)

6.1.2. Topography

Topography is the study of the shape and features of land surfaces. The topography of an area could refer to the surface shapes and features themselves, or a description (especially their depiction in maps). Topography is a field of geoscience and planetary science and is concerned with local detail in general, including not only relief but also natural and artificial features, and even local history and culture. This meaning is less common in the United States, where topographic maps with elevation contours have made "topography" synonymous with relief. The proposed area is undulating (having a shape like a wave or moving up and down like a weave), the land is gentle undulating.

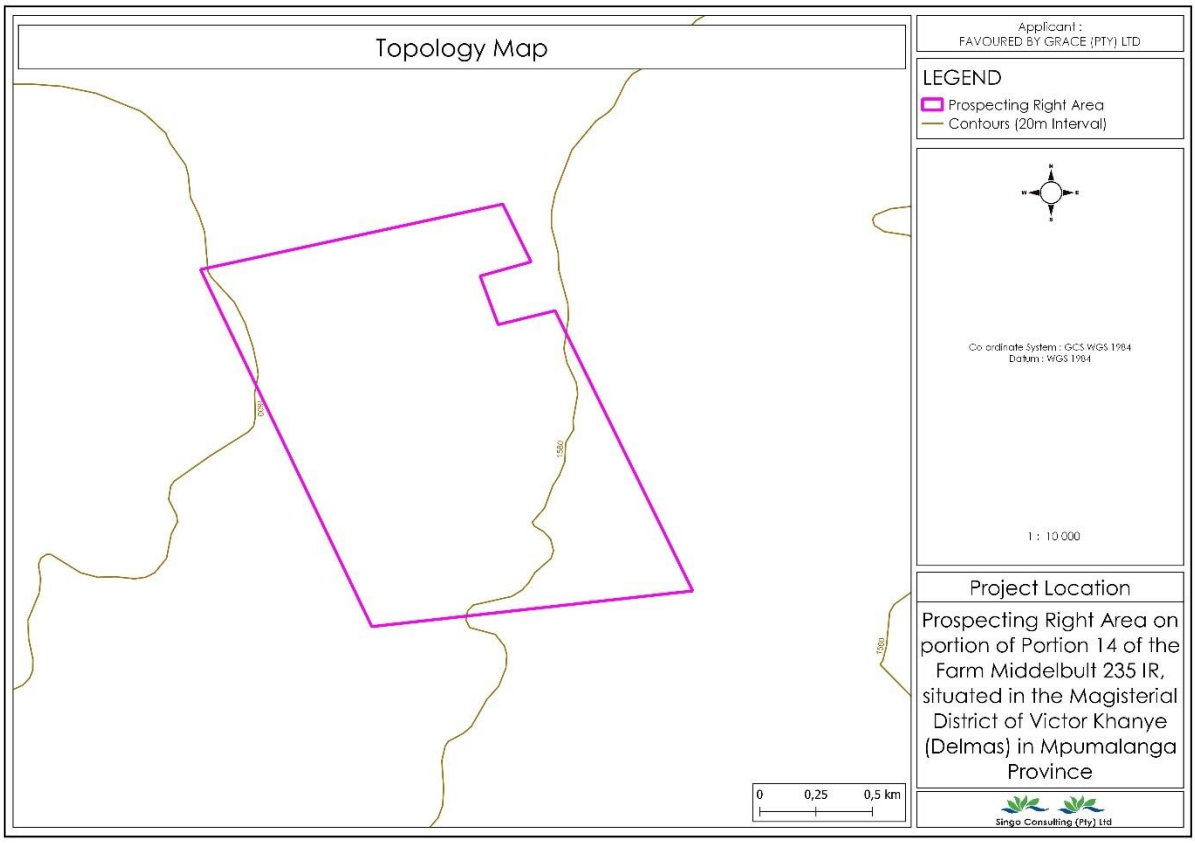


Figure 14: Topology map of the project area (Singo Consulting, 2022)

6.1.3. Geology

Regional geology

According to PWP that was conducted, the proposed project area follows under the main Karoo supergroup. The geology of the study site is characterized by Vryheid Formation under Ecca group.

Karoo Supergroup

The sedimentary part of the Karoo Supergroup is subdivided into four main lithostratigraphic units, which from the base up are the Dwyka, Ecca, Beaufort and Stormberg (Molteno, Elliot and Clarens formations) groups (Johnson et al., 1996; SACS, 1980;). These are capped by some 1.4 km of basaltic lavas of the Drakensberg Group (Johnson et al., 1996; Veevers et al., 1994), the extrusion of which is related to the break-up of Gondwana (Cox, 1992). The basement to the Karoo Supergroup fills in both the MKB and in the northern basins is heterogeneous (Bordy et al., 2004a; Hancox, 1998; Rutherford, 2009) and this heterogeneity plays a significant control

on the nature of the fill, particularly during the early phases of the deposition of the Karoo Supergroup.

Dwyka Group

The rocks of the Dwyka Group in South Africa are amongst the most important glaciogenic deposits from Gondwana. This Group is named for exposures along the Dwyka River east of Laingsburg and forms the basal succession of the Karoo Supergroup. Dwyka Group strata are mostly contained within bedrock valleys incised into Archean to lower Palaeozoic bedrock (Visser, 1990; Visser and Kingsley, 1982; Von Brunn, 1996). The lithologies in the areas underlying the coalfields of South Africa consist of a heterolithic arrangement of massive and stratified9 polymictic diamictites, conglomerates, sandstones and dropstone-bearing varved mudstones. The easily identifiable lithologies form a good marker below the coal bearing Ecca Group. In the distal sector of the MKB these sedimentary strata accumulated largely as ground moraine associated with continental ice sheets and is generally composed of basal lodgement and supraglacial tills. These deposits are generally massive, but crude horizontal bedding occurs in places towards the top (Tankard et al., 1982).

Ecca Group

In the 1970s a number of studies (Cadle, 1974; Hobday, 1973, 1978; Mathew, 1974; Van Vuuren and Cole, 1979) showed that the Ecca Group could be subdivided into several informal units based on the cyclic nature of the sedimentary fills. In 1980 the South African Committee for Stratigraphy (SACS, 1980) introduced a formal lithostratigraphic nomenclature for the Ecca Group in the northern, distal sector of the MKB, which replaced the previously used informal Lower, Middle and Upper subdivisions with the Pietermaritzburg Shale Formation, the Vryheid Formation and the Volksrust Shale Formation.

Pretoria Group of the Transvaal Supergroup

➢ **Hekpoort Formation**

The subarerial volcanism of the Hekpoort Formation began in the south, with the first lavas extruding during deposition of the Boshoek sandstons (Reczko et al., 1995b). in excess of 1100m of basaltic-andesitic lava is preserved in the south, with iver 800m in

the west of the basin, but these rocks thin to the northeast where less than 50m is found. Subaerial fissure eruptions appear to have dominated, with locally important pyroclastic systems (Oberholzer, 1995). Intermittent hiatuses in volcanism were marked by small lacustrine shale deposits. An uppermost widespread palaeosol postulated by Button (1973a) has been disputed by more recent workers (Engelbrecht, 1986; Oberholzer, 1995).

➢ **Timeball Hill Formation**

The Timeball Hill Formation, with a thickness in excess of 1100 m in the northern part of the Transvaal Basin, also comprises three sedimentary members; these include the lower and upper shale members separated by a sandstone unit, the Klapperkop quartzite Member (Eriksson et al., 1994a). Minor lenses of poorly sorted diamictites and wackes, ascribed to reworking of periglacial detritus have also been identified in the upper shale member (Visser,1971).

A variety of genetic facies associations are recognized in the formation: pelagic suspension deposits, distal and proximal turbidites, contourites, and lower and upper tidal flat deposits11(Eriksson and Reczko, 1998). The close association between deeper marine and coastal facies is explained by a significant stratigraphic break that separates the lower mudstones from the overlying Klapperkop quartzite Member. Thin stromatolitic carbonate interbeds in the Timeball Hill mudstones suggest that sedimentation took place within the photic zone (Eriksson and Reczko, 1998).

Klapperkop Quartzite

The arenaceous Klapperkop Member consists of an erosively based, generally upwardcoarsening succession of tidally reworked braid-delta deposits, interpreted as lowstand facies by Eriksson and Reczko (1998). Eriksson and Reczko (1998) recognized two separate facies within the Klapperkop Member: (1) mature cross-bedded sandstone sheets, interpreted as lower tidal flat deposits; and (2) interbedded lenticular immature sandstones and mudstones, interpreted as medial to upper tidal flat deposits. The lower tidal flat deposits consist of sandstone beds with lateral extents of tens to hundreds of meters, and bed thicknesses of up to 5 m.

These rocks are mostly fine- to medium-grained, and comprise quartz arenites with subordinate sublithic arenites, quartz wackes, and lithic wackes (Schreiber, 1990). Minor, thin mudstone interbeds are also found (Eriksson and Reczko, 1998). The

sandstone sheets display planar and trough crossbedding with varying proportions around the basin (Button, 1973; Key, 1983; Van der Neut, 1990; Schreiber, 1990). A few herringbones cross-bed sets occur, as well as minor interference and bifurcating ripples, and rare mud cracked surfaces and preserved megaripples (Button, 1973; Schreiber, 1990). A relatively shallow water depositional setting is inferred for these cross-bedded sandstone sheets, supported by uncommon mud cracks and ripple marks. The presence of minor herringbone cross-beds, bifurcating, and interference ripples suggests tidal action. The textural and compositional maturity of these inferred tidal sandstone sheets points to a lower tidal flat setting where reworking would have been more prevalent (Eriksson and Reczko, 1998).

The medial to upper tidal flat deposits are commonly interbedded with stacked lower tidal flat sandstone sheet successions up to 30 m thick (Eriksson and Reczko, 1998). The inferred upper tidal flat deposits comprise lenticular sandstone bodies, from less than 1 m to about 50 m in lateral extent, and up to about 50 cm thick, interbedded with finely laminated, micaceous mudstones. The sandstones are compositionally and texturally immature, mostly fine to medium grained. Locally, coarse-grained sandstones and even small pebble conglomeratic basal lags are observed (Eriksson and Reczko, 1998). The presence of interbedded sandstones and mudstones, ladderback and flat-top ripples, herringbone cross-strata, and mud cracks12 supports the varying energy levels and intermittent exposure typical of middle to upper tidal flats.

Malmani Subgroup of the Chuniespoort Group

The Malmani Subgroup in the Transvaal Basin is up to 2000m thick and is subdivided into five formations (Oaktree Formation, Monte Christo Formation, Lyttelton Formation, Eccles Formation and Frisco Formation), based on the chert content, stromatolite morphology, intercalated shales and erosion surfaces (Button, 1973b; Eriksson and Truswell, 1974)

Local Geology

The proposed project lies within the Highveld Coalfield which is known as one of the largest producing coalfields. The Highveld coalfield lies within the south-eastern part of the Mpumalanga Province. The Highveld Coalfield is dominated by the Vryheid Formation (middle Ecca Group) of the Karoo Supergroup. The Highveld Coalfield is in

the south-eastern Mpumalanga Province, immediately south of the Witbank Coalfield. The width of the Coalfield is roughly 95km, stretching from Nigel in the west to Davel in the east, and it is in a North-South direction, about 90km long, from just north of Kriel to beyond Standerton in the south and covers an area of approximately 7 000km2. After the Witbank Coalfield, the Highveld Coalfield is the next largest producing Coalfield in South Africa. The basement changes over the area of the Highveld Coalfield from basement granites, gabbros and norites of the BIC, to Witwatersrand Supergroup metaquartzites, and Transvaal Supergroup metaquartzites and metavolcanics.

It hosts up to six bituminous coal seams which are present in a 120m succession of sedimentary lithologies which overlies the Dwyaka Group (formation of diamicite/ pre-Karoo basement) of the Karoo Supergroup. The coal seams are numbered from coal seam No.1 which forms the base of the sequence to coal seam No.6 which forms the top part of the sequence. So major coal seams are used to remove sediments with constitute genetic sequences. As seen on Figure 32 there is a coarsening-upwards assemblages of the coal seam 4, 5, and 6 Genetic Sequences they are commonly modified by post-depositional channelling and removal of the underlying strata, followed by deposition of coarse-grained sandstone. Palaeo-topographic relief controlled the distribution of the 2 Seam Genetic Sequence by confining conglomeratic sandstone to palaeo-valleys which channelized fluvial flow S into the basin. The overlying 4, 5, and 6 Seam Genetic Sequences were less affected by basement topography. Their distribution was primarily controlled by the paleoenvironments in which sediment deposition took place (Cairncross (1986). See Figure 32 The main coal zone of the Highveld Coalfield contains seams No.3, 4L and 4U. This zone is overlain by upward coarsening deltaic sequence of about 40m thick. This 40m unit varies in thickness from 60m to 100m and is characterized by micaceous mudstone and siltstone (Hagelskamp et al. 1988). According to Hancox (2014), Highveld Coalfield is characterized by 5 seams and can be outlined as below.

The No. 1 Seam

The No.1 Seam of the Highveld Coalfield is discontinuous and mostly developed in the eastern part of the coalfield, specifically the Kriel area. In all other areas it is developed

in patches and relatively thin. It can be attributed to the glacial valleys just as in the Witbank Coalfield.

The No. 2 Seam

Hancox 2014 outlines that the No. 2 seam at Highveld Coalfield may be split into No.2 Lower (No. 2 L) and No. 2 Upper (No. 2 U). which care to be mined separately due to partings. Generally, in the northern margin of the coalfield, the No. 2 Seam is developed at a depth of approximately 30 m and up to a depth of 240 m in the Southwest of the coalfield. Its thickness ranges from 4 m along the northern margin and up to 10 m in the west. In the east and Southeast of the coalfield, seam thickness is less than a metre. It could be important to keep note of the fact that the Rietfontein 313 IR project lies in the North-western margin of the coalfield.

The No. 3 Seam

The No. 3 seam is very sporadic and thin compared to other seams. It is generally less than 0.5 m thick and locally in the western part of Secunda area, can develop a thickness of up to 1m. It can be noted that in some areas, the No. 3 and No.4 seams can be mined as one unit, especially when the parting between the two seams is less than 0.5 m.

The No. 4 Seam

In the first section of this report, it is explicitly said that the No. 4L and 2 are the economic seams due to their thicknesses. With specifications to the Highveld Coalfield, the No.4 seam is the major economic seams developed and which forms the bulk of the coal resources. Its depth varies geographically. For instance, this seam lies a depth of 15 m in Kriel, deepening to around 300 m to the east of Standerton. The No.4 seam is divided into 4L and 4U. The mineable section of the seam encompasses dull lustrous coal with peripheral proportions of mixed coal and dull coal. The partings between the divided 4L an 4U seams is composed of sandstone unit which varies from roughly 2 m in the north to about 3 m in the central part of the coalfield. It continues to thicken to about 15 m in the south. The No. 4L seam has average thickness of 4 m. This thickness is said to vary between less than 1 m to 12 m. Where the seam is considered thin, the full seam is mineable and where the seam is thicker, coal extraction is only restricted to the lower 3.5 m to 4.0 m of the seam. There are instances

where seam No. 4L and 3 converge to form a single unit that can be averaged to a thickness of about 3.6 m. According to Jordaan (1986), the Sean No. 4U has an average thickness of 2 m which varies between 1.5 m and 3.4 m. This seam is only mineable in the western part of the coalfield where it is sitting between 1 m and 5 m between the No. 4L Seam.

The Seam No. 5

The No. 5 Seam is broadly inaugurated at depths of between 15-150 m. Its thickness ranges from 0.30-3.0 m. Oftentimes this seam produces a high-grade product through beneficiation. However, if there is presence of a 0.40-6.0 m hard siltstone parting along the northern margin, the seam is regarded uneconomic.

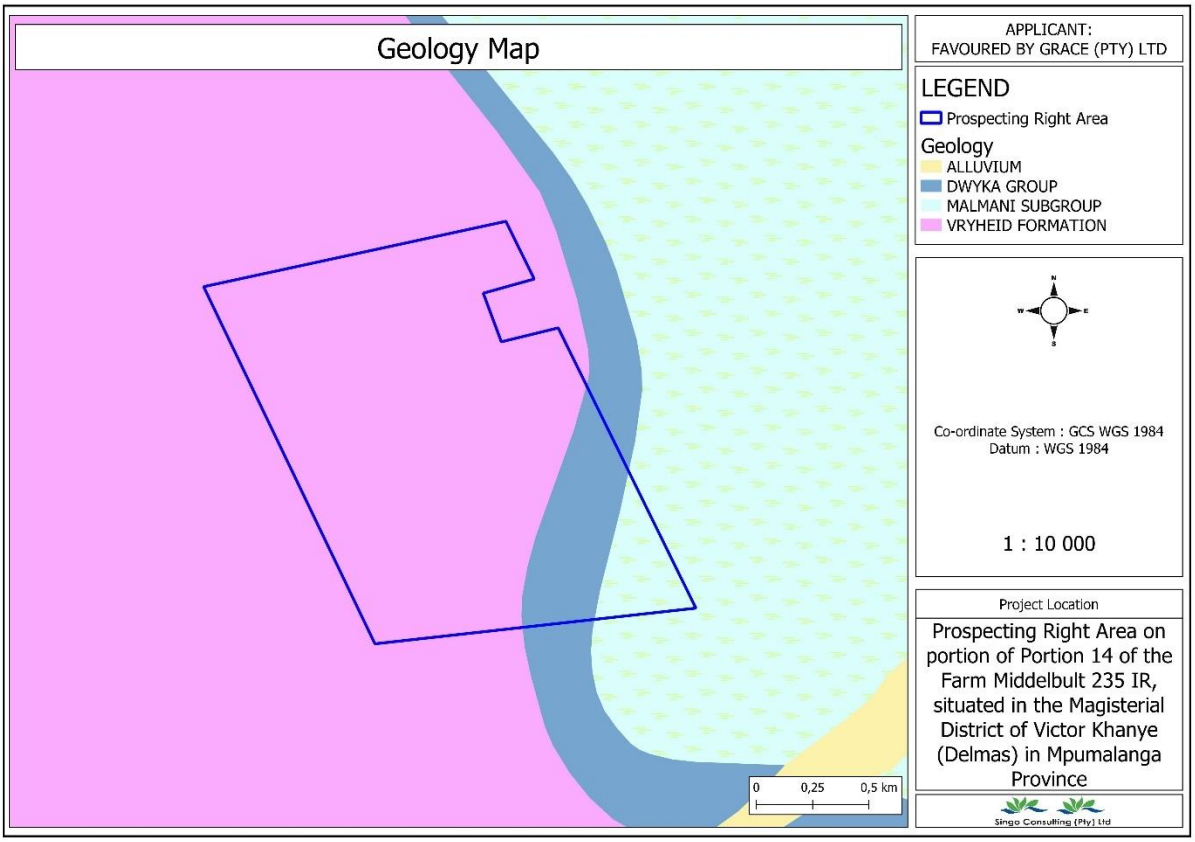


Figure 15: Geology map of the project area *(Singo Consulting, 2022)*

6.1.4. Soils

The soil classes map in Figure 8 below, shows that the Prospecting Right area is largely covered with freely drained, structureless soils.

Freely drained, structureless soils.

The Freely drained, structureless soils can be defined based on their soil depth, Soil Drainage, erodibility, and natural fertility.

Soil depth

Depth of the soil profile is from the top to the parent material or bedrock. This type of soil can be classified as a restricted soil depth. A restricted soil depth is a nearly continuous layer that has one or more physical, chemical, or thermal properties.

Soil Drainage

Soil drainage is a natural process by which water moves across, through, and out of the soil because of the force of gravity. The soils in the proposed area have an excessive drainage due to the soils having very coarse texture. Their typical water table is less than 150.

Erodibility

Erodibility is the inherent yielding or non-resistance of soils and rocks to erosion. The freely drained structureless soils have high erodibility. A high erodibility implies that the same amount of work exerted by the erosion processes lead to a larger removal of material.

Natural Fertility

Soil fertility refers to the ability of soil to sustain agricultural plant growth, i.e., to provide plant habitat and result in sustained and consistent yields of high quality. The soil, as a nature of them, contains some nutrients which is known as 'inherent fertility'. Among the plant nutrients, nitrogen, phosphorus, and potassium is essential for the normal growth and yield of crop. The proposed area has a low natural fertility soil.

Photo 2: Soil type observed on site

***Figure 16**: Soil classes of the project area (Singo Consulting, 2022)*

6.1.5. Climate

Delmas has a pleasant and temperate climate. Summers have significantly higher rainfall than winters. The Köppen-Geiger classification classifies the climate as Cwb. The average annual rainfall is between 601 and 800 mm. Delmas receives an average of 706.1 millimeters of precipitation per year. Delmas has an average yearly temperature of 16.1°C. January is the warmest month on average, with a temperature of 20.8°C. June is the coolest month, with an average temperature of 9.5°C. July is the driest month of the year, with only 5.1 mm of rainfall, whereas January's precipitation averages 124.5 mm, and it is the warmest month of the year, with an average of 17.9°C and July is the coldest with an average temperature of 9.0°C

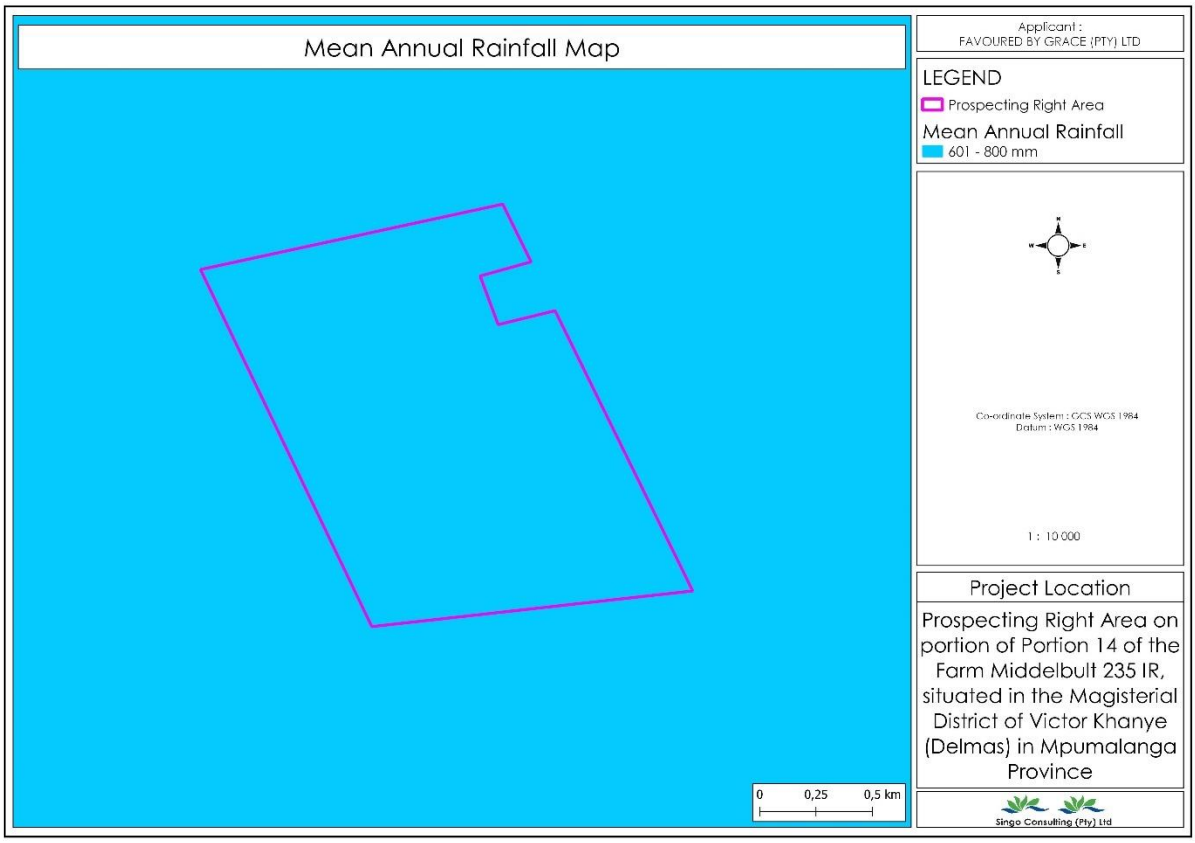


Figure 17: Mean Annual Rainfall Map *(Singo Consulting, 2022)*

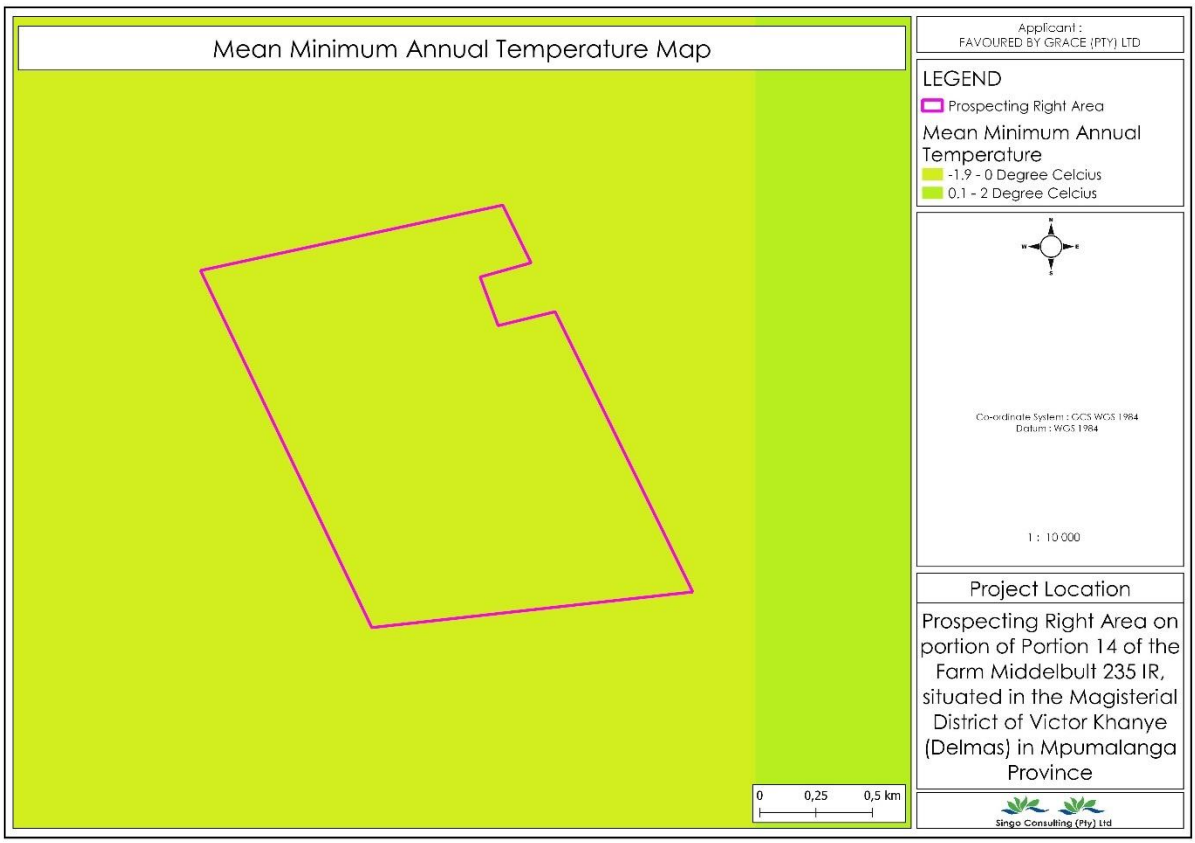


Figure 18: Mean minimum annual temperature within the prospecting right area *(Singo Consulting, 2022)*

6.1.6. Catchment description

According to Hydrological baseline study, the prospecting area falls within the Olifants Water Management Area (WMA). The prospecting right falls within the quaternary catchment B20B with some portion that falls within the B20A catchment. The B20A catchment covers an extent of 574 km2, a mean annual evaporation (MAE) of 1677 mm, a mean annual precipitation (MAP) of 669 mm and a mean annual runoff (MAR) of 25.60 mcm. B20B catchment covers an extent of 322 km2, a mean annual evaporation (MAE) of 1677 mm, a mean annual precipitation (MAP) of 669 mm and a mean annual runoff (MAR) of 14.40 mcm. Figure below illustrates the Quaternary catchment and the Water Management Area (WMA)

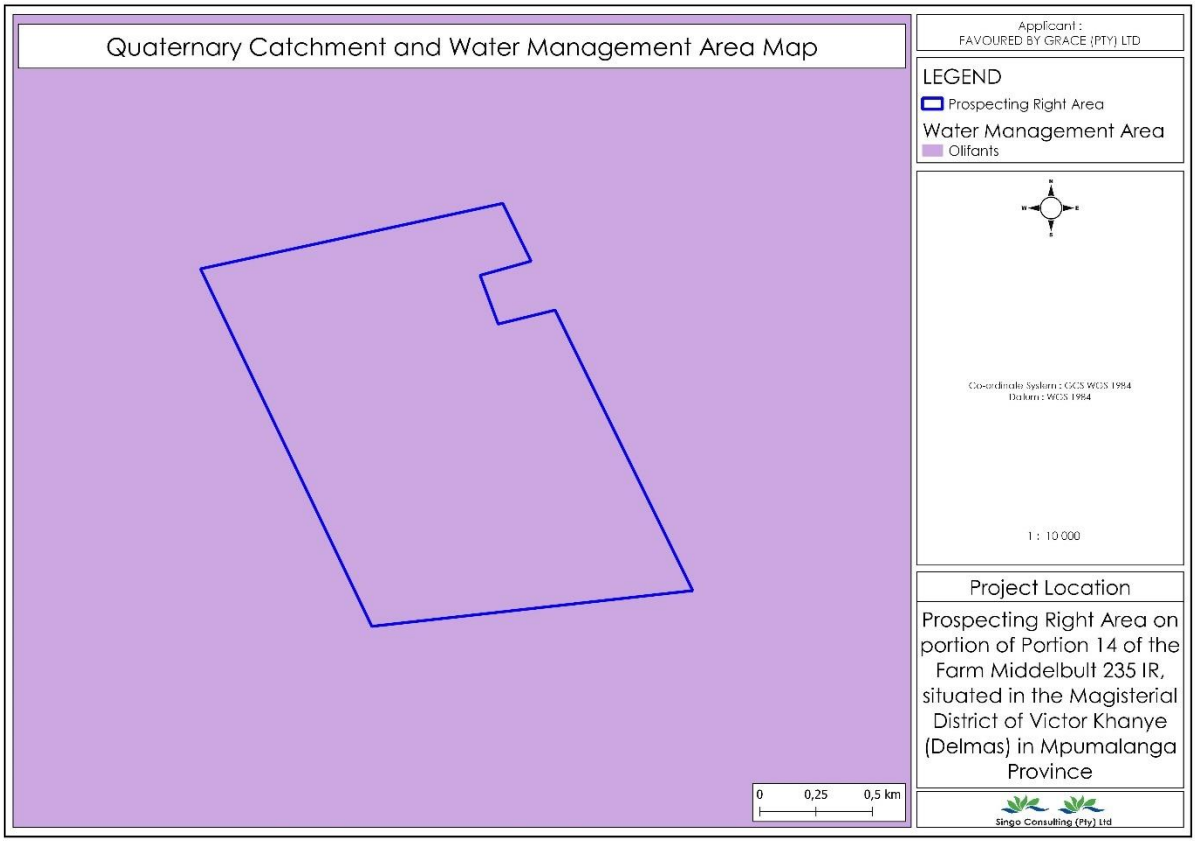


Figure 19: Quaternary Catchment and Water Management Areas of the proposed project area *(Singo Consulting, 2022)*

Hydrology

The hydrology surrounding the proposed area is very importance during prospecting. In this context hydrology is all the surface waters appearing within and nearby the proposed project area, where a potential to be impacted upon by the project exist. The hydrology map,

illustrates that the following water bodies exists:

- Channelled valley-bottom wetland
- Depression wetland
- Non-perennial river
- Seep wetland

For this project where prospecting right poses a risk on them, there should be measures and guidelines put in place that will protect the water resources in this area to ensure optimal conservation of water. The prospecting right activities should take place during dry seasons when the water percentages are extremely low. Extreme caution should be taken during prospecting, owing to the rivers and numerous wetlands existing nearby and within the project area. And all the wetlands, perennial and non-perennial rivers will be buffered as a no-go area and approximately a 100m buffer should apply. According to the screening report the aquatic biodiversity theme

sensitivity of the proposed area is of very high sensitivity including features which are strategic water sources area and wetlands and Estuaries.

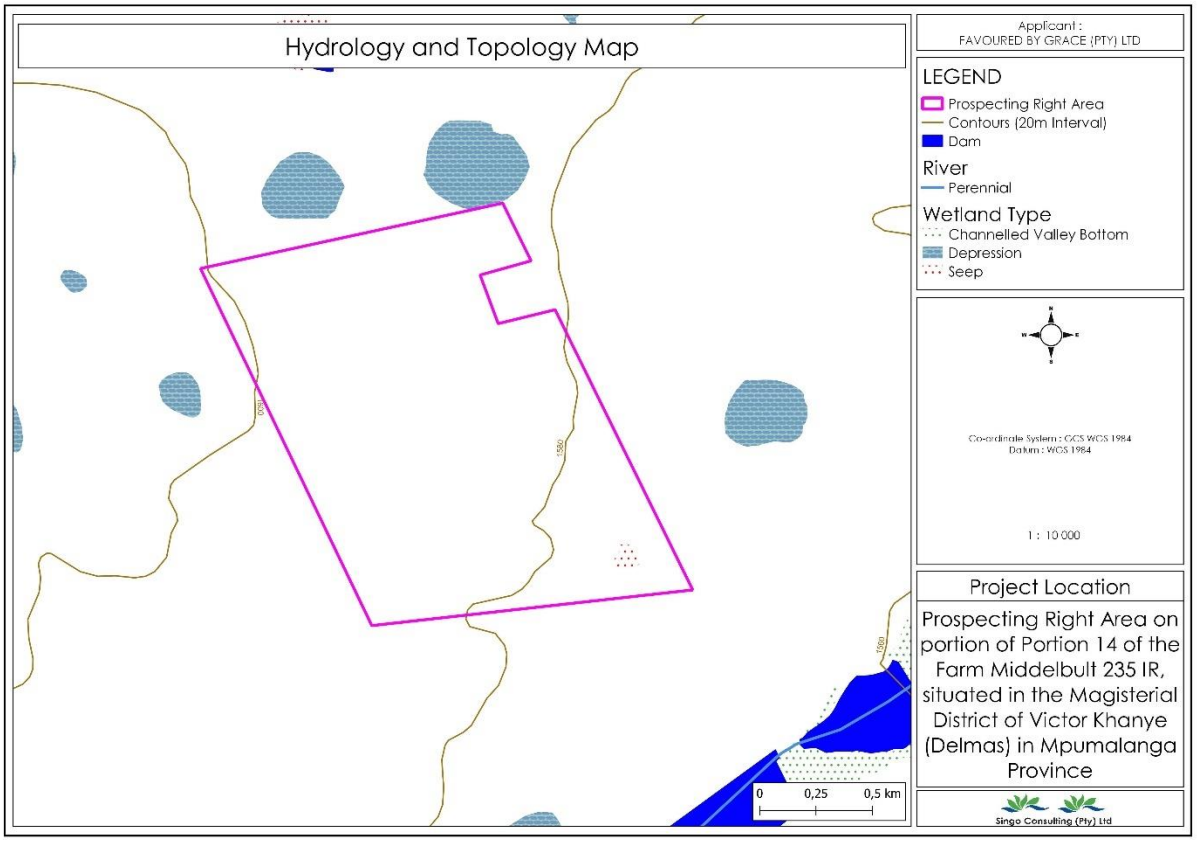
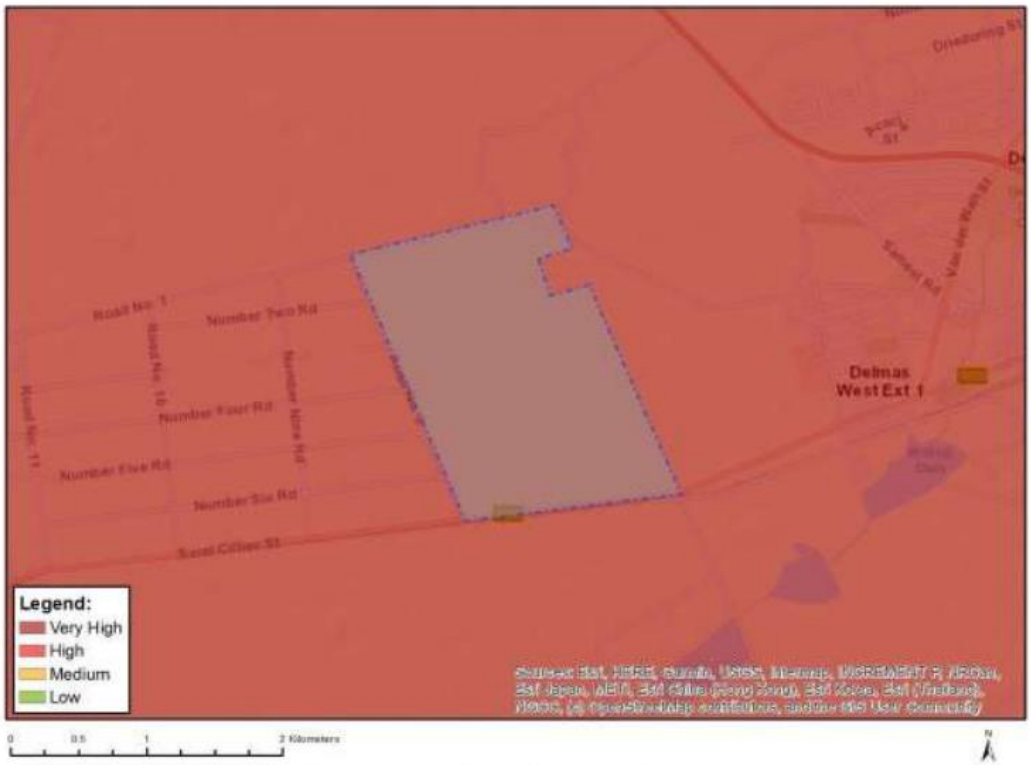


Figure 20: Hydrology and topology map of the project area *(Singo Consulting, 2022)*

MAP OF RELATIVE AQUATIC BIODIVERSITY THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Figure 21: Aquatic Biodiversity theme sensitivity *(adopted from screening report).*

Buffer Zones

Buffer zones are strips of undeveloped, typically vegetated land (composed in many cases of riparian habitat or terrestrial plant communities) which separate development or adjacent land uses from aquatic ecosystems (rivers and wetlands). For the protection of the aquatic resource in the study area it is essential that buffer zones are adequately defined. In establishing buffer zones, it is essential to define the primary purpose for establishing buffers, which will guide the development of an appropriate approach. The primary purposes for hydrological basic study are to:

➢ Reduce the impacts of adjacent land uses on water resource quality. At a broad level, this would be used to flag potential constraints to development to inform regional planning initiatives. The primary application is likely to inform site-specific planning of new developments / land use change. It may also be applied as "Best-practice" guidelines to inform land management (e.g., certification schemes).
➢ Sustaining or improving the ability of the water resources to provide goods and services to society. This recognizes the importance of aquatic resources, and that adequate protection of these resources is required to ensure that levels of benefits

are not jeopardized for current or future generations.
➢ Providing protection of and providing habitat for aquatic and semi-aquatic species.

Buffer width is regularly cited as one of the most important attributes affecting the functioning of aquatic buffers, regardless of the site properties or intended protection characteristics of the buffer. To assess and apply the width of any buffer it is important to understand the role that buffer zones do play in protecting aquatic resources with associated biota and in mitigating impacts from anthropogenic activities.

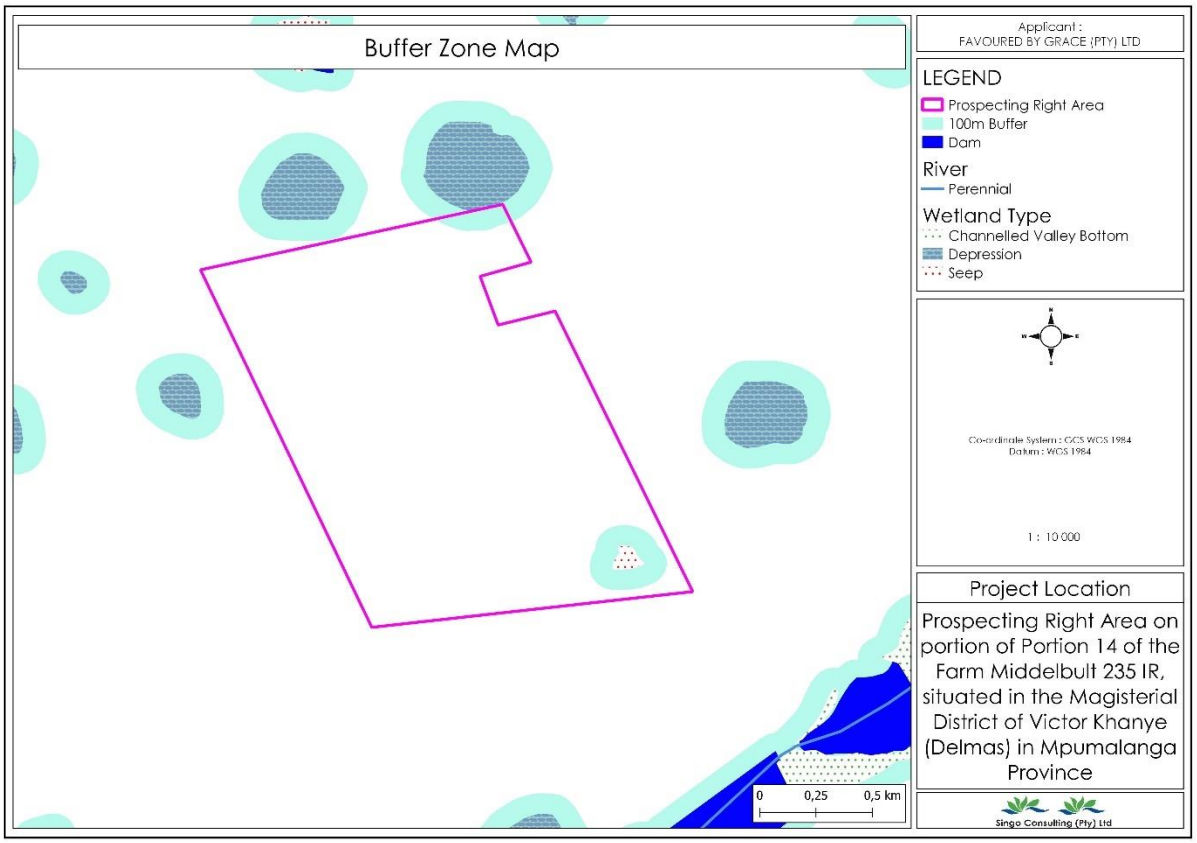


Figure 22: Buffer Zone map of the proposed project area *(Singo Consulting, 2022)*

Biodiversity

The map below in **Figure 23** presenting critical biodiversity of the area, it is confirmed that the prospecting area is situated in other natural areas which are not identified as CBAs or ESAs but provide a range of ecosystem services from their ecological infrastructure, moderately modified-old lands are areas which were modified within the last 80 years but now abandoned, including old mines and old cultivations, heavy modified are transformed areas where biodiversity and ecological function have lost to the point that they are not worth considering for conservation at all, ESA local corridor are fine scale connectivity pathways that contribute to resilience and connectivity between climate focal areas, CBA Optimal are areas that are optimally located as part of the most efficient solution to meet biodiversity targets and CBA irreplaceable are areas that are 80-100% irreplaceable for meeting biodiversity conservation targets, or critical linkages or Critically endangered Ecosystem.

According to the screening report the terrestrial biodiversity theme sensitivity of the proposed area is of very high sensitivity including very highly vulnerable ecosystem.

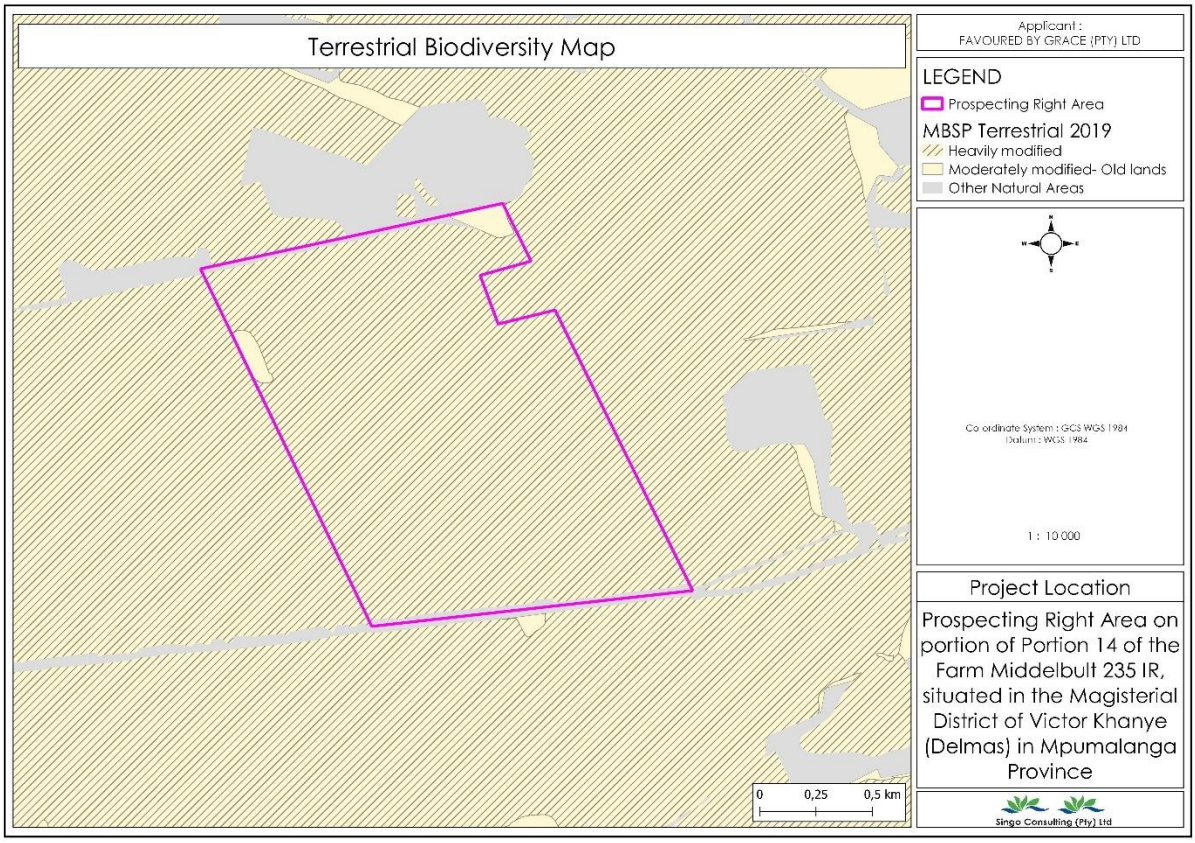


Figure 23: Biodiversity map of the proposed project area *(Singo Consulting, 2022)*

MAP OF RELATIVE TERRESTRIAL BIODIVERSITY THEME SENSITIVITY

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Figure 24: Aquatic biodiversity theme sensitivity of the project area *(adopted from screening report)*

Vegetation

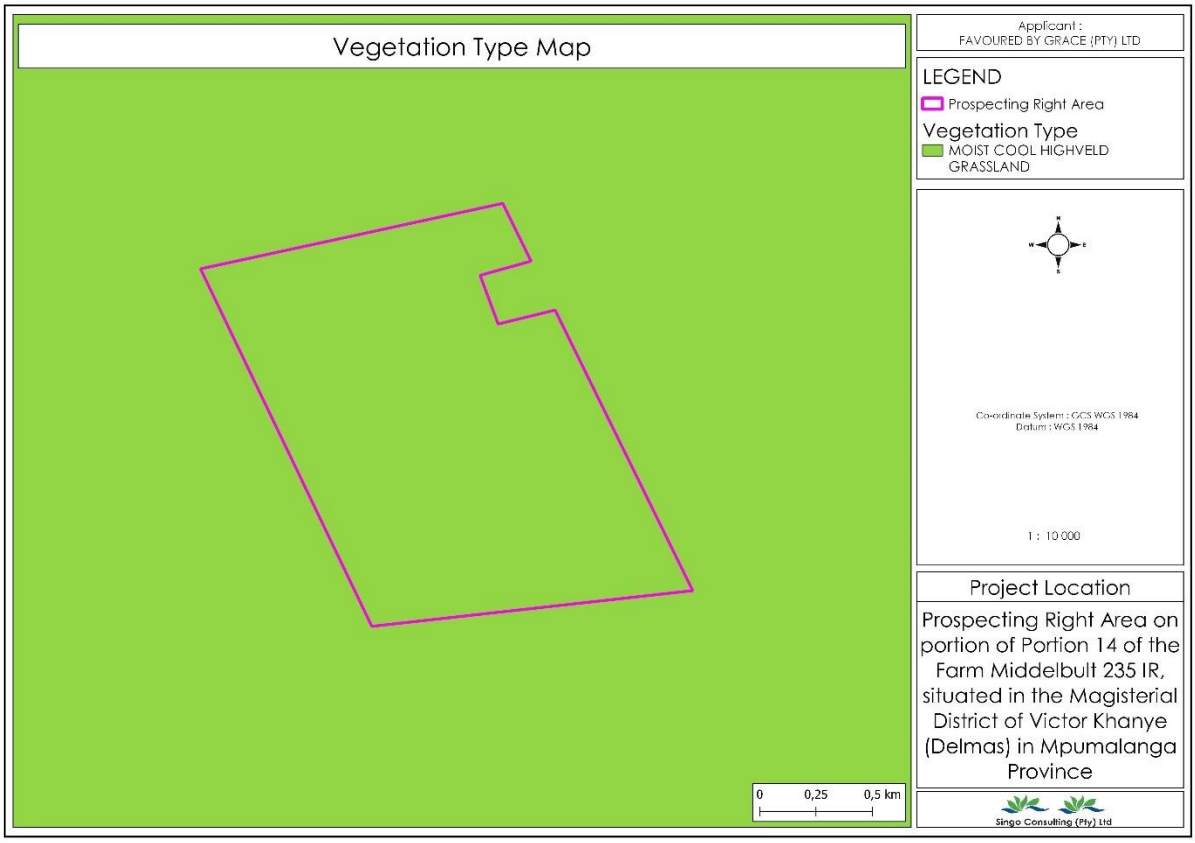


Figure 25: Vegetation map of the proposed project area *(Singo Consulting, 2022)*

MAP OF RELATIVE AGRICULTURE THEME SENSITIVITY

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
	X		

Figure 26: Agriculture theme sensitivity of the proposed project *(adopted from screening report).*



Photo 3: Vegetation observed on site

6.1.7. Agriculture

The agriculture theme sensitivity on the proposed area is 80-100% very high, the area is more populated by cultivation farming.

MAP OF RELATIVE AGRICULTURE THEME SENSITIVITY

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
	X		

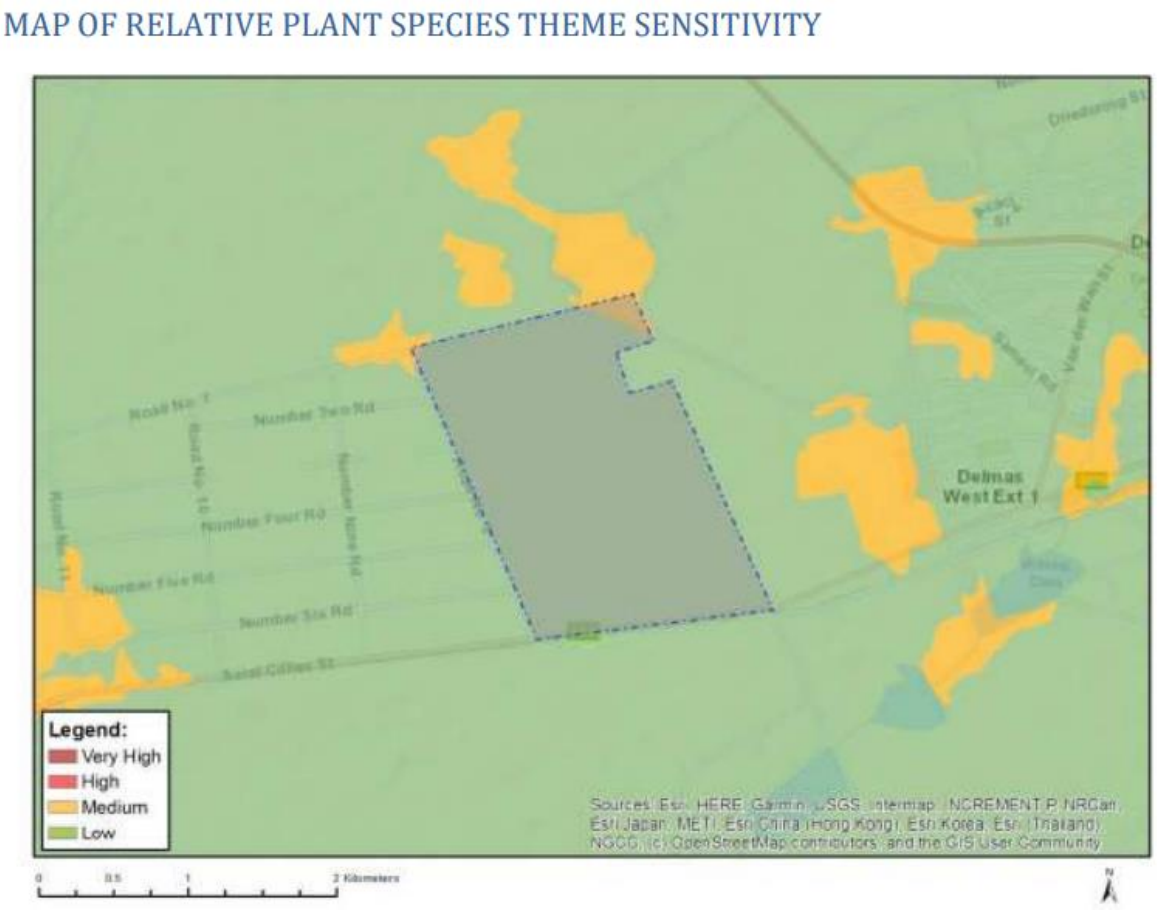
Figure 27: Map of relative agriculture theme sensitivity *(adopted from screening report).*

Photo 4: Agriculture on site

Flora

The plant species found on site are low and medium sensitive as deduced from the screening tool report, the medium sensitive plants include Brachycorythis conica subsp. transvaalensis and Pachycarpus suaveolens. Pachycarpus Suaveolens is a showy plant known from eight historical locations and probably extremely rare. One location, last collected in Gauteng in 1929 has subsequently been lost to urban expansion and this species is likely to be locally extinct in Gauteng. The grasslands habitat across its range (EOO 19 900 km²) is extensively transformed by urban development, crop cultivation, mining, and invasive alien plants.

Mining is causing a continuing decline in habitat between Witbank and Carolina. Not endemic to South Africa, ranges Gauteng and Mpumalanga to Swaziland.

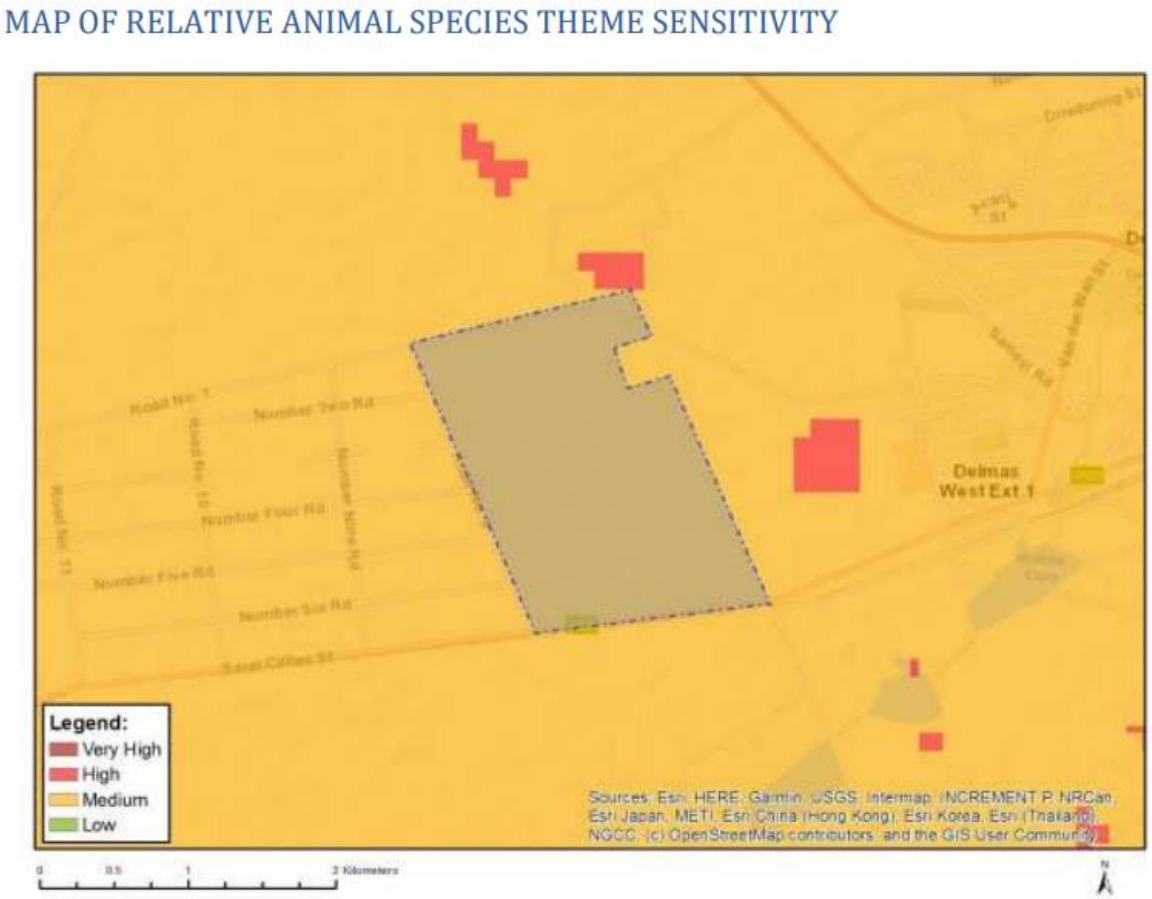


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		x	

Figure 28: Plant species theme Sensitivity map of the proposed area *(adopted from screening report).*

Fauna

According to screening report the animal sensitivity of the area is of medium sensitivity however area is of medium sensitivity including features such as Invertebrate-Clonia uvarovi, Mammalia-Chrysospalax villosus, Mammalia-Crocidura maquassiensis, Mammalia-Dasymys robertsii, and Mammalia-Hydrictis Maculicollis.



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		X	

Figure 29: Animal Species theme sensitivity *(adopted from screening report).*

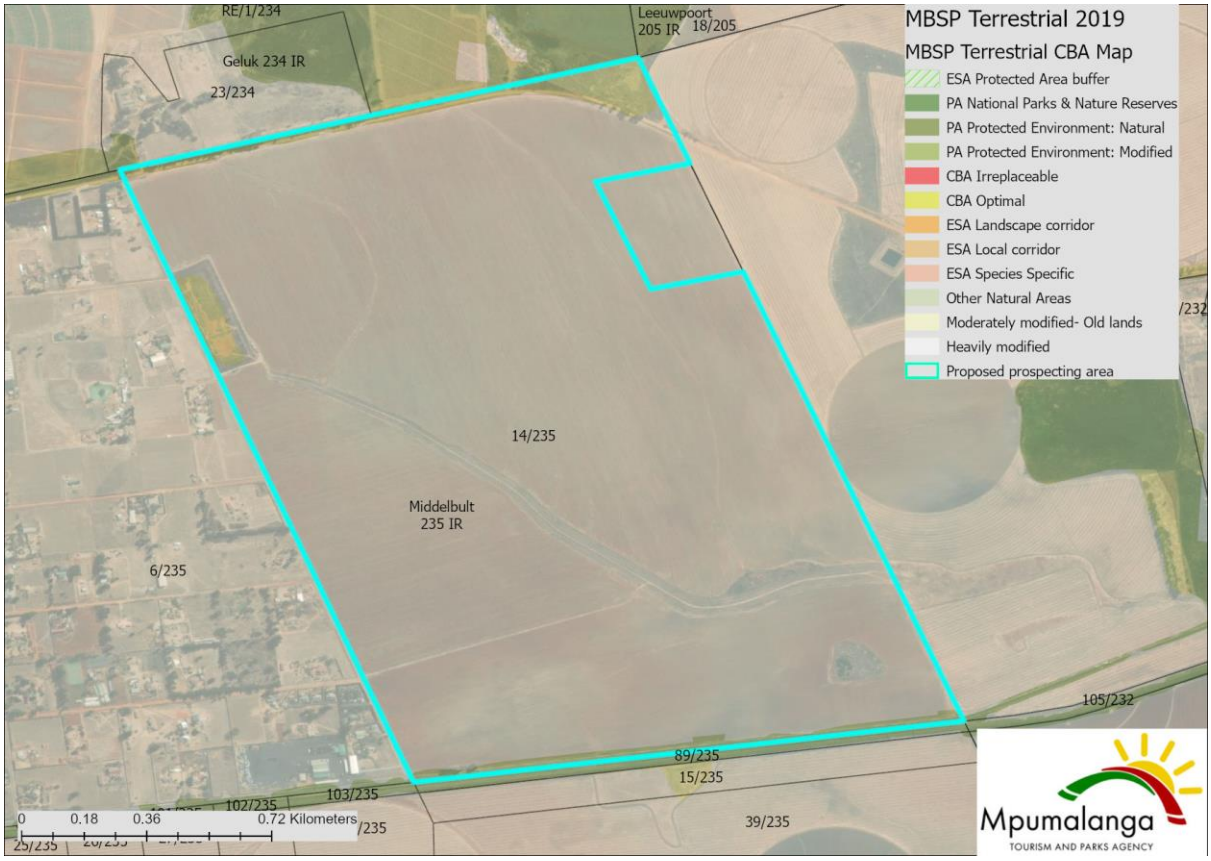


Table 6: MBSP Terrestrial map (Source: MTPA)

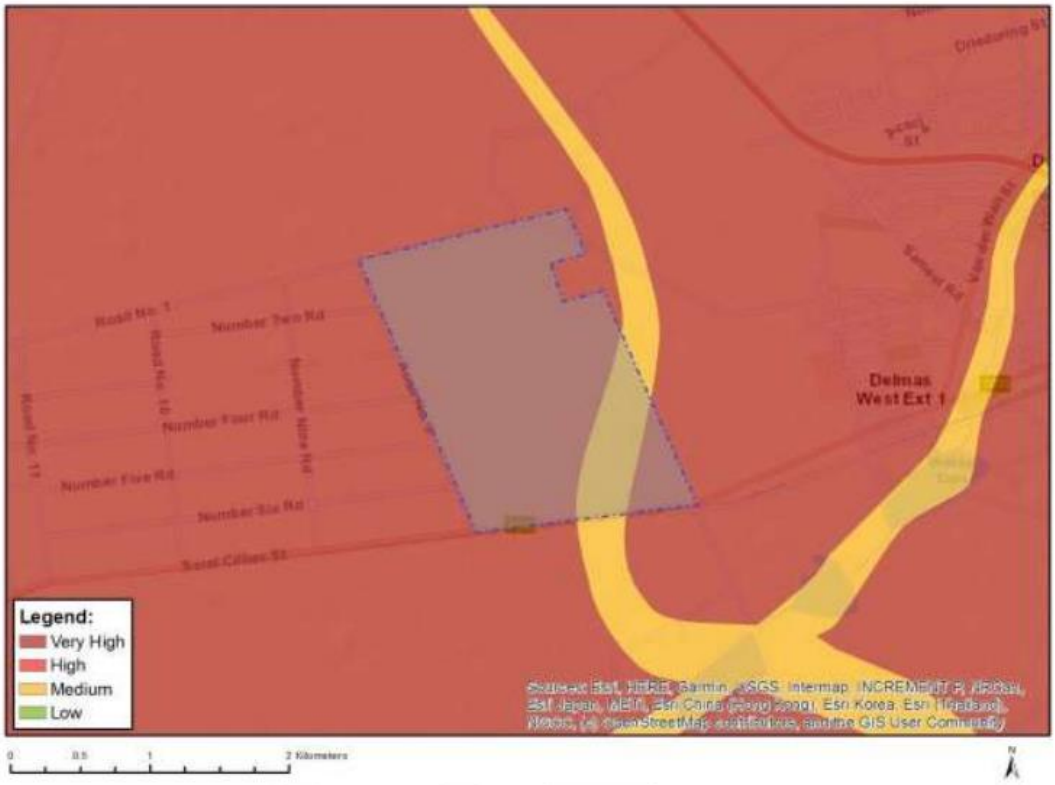
6.2. Cultural and Heritage

MAP OF RELATIVE ARCHAEOLOGICAL AND CULTURAL HERITAGE THEME SENSITIVITY

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

Figure 30: Map of relative Archeological and cultural heritage theme sensitivity *(adopted from screening report).*

MAP OF RELATIVE PALEONTOLOGY THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Figure 31: Map of relative paleontology theme sensitivity

6.3. Land Capability

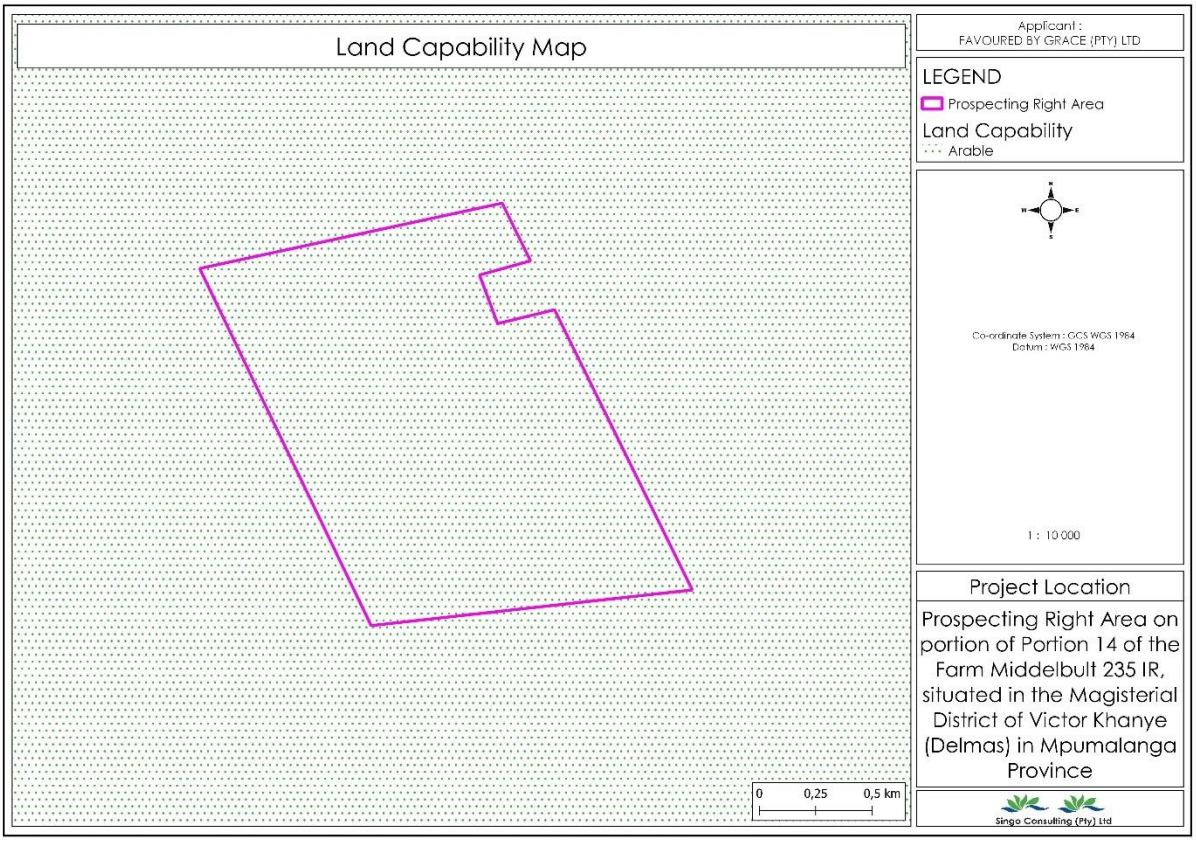


Figure 32: Land capability map for the project area *(Singo Consulting, 2022)*

Photo 5: Cultivation observed on site

6.4. Noise and Dust Sources

Noise sources and baseline

Prospecting and associated activities often emit significant noise levels which can become a nuisance or health risk when not properly managed. This impact may affect not only to the prospecting area, but also to the surrounding land users and occupiers. The most sensitive receptors identified for the project area are the landowners and occupiers of the study area itself, surrounding communities including land users. The local area is predominantly occupied by agricultural land uses.

The main noise generation activities of the proposed activities during all phases are:

- Transportation of materials;
- Drilling; and
- Loading and off-loading of equipment and materials.
- Limited number of vehicles moving around the site; and

Noise generation can be expected on the proposed site due to various activities and actions as indicated above. Noise levels may possibly exceed allowed limits for noise as indicated in SANS 10103: 2008. There are multiple sensitive receptors in the area that will be affected by the noise associated with prospecting activities, this includes but not limited to the homesteads on and immediately adjacent to the study area as well as the threatened Southern bald ibis which may be affected by the noise in the area and will be driven away.

Due to the proximity of the homesteads to prospecting activities, mitigation measures are required to be implemented to reduce this impact. Mitigation measures may include keeping noisy activities to normal working hours and not over weekends or public holidays and maintaining machinery and vehicles to avoid unnecessary excessive noise emanating. It is also recommended that consultations be held with affected parties to establish an acceptable schedule of noisy activities. Animals that are found within the proposed farm area will also be affected by the noise generated by drilling activities. Mitigation measures will be developed and implemented to protect the animals from the noisy prospecting activities.

Dust Sources and baseline

The following sensitive receptors of dust have been identified and it is expected that these receptors may be affected by dust fallout and other air pollutants, resulting from the proposed prospecting activities:

- Landowners of the study area;
- Landowners and lawful occupiers of the properties adjacent to the study area;
- Surrounding communities including land users, residential areas
- Faunal and floral species within the farm area

The main source of air pollution in the local area is the dust emanating from the agricultural activities within the farm. Dust fallout will be measured prior to the drilling activities and monitored throughout the period of the drilling activities within the proposed farm area. It is not expected that the air quality outside of the study area will deviate from its current condition during prospecting. Normal vehicular activity, as is already present, will most likely continue. There is, however, a risk that dust levels may increase because of the proposed activity and therefore mitigation measures will be recommended. Limiting the speed of vehicles on the gravel roads to 30km/h will have a threefold benefit in terms of health and safety: it will reduce dust fallout, reduce exhaust emissions, and ensure the safety of workers. Another measure is to suppress dust by means of spraying water on the gravel roads, 20 000L water will be bought from the local municipality or from the local water service facility to aid in the suppression of the amount of dust to be created by the drilling activities. To minimize impacts on plants caused by dust deposition from the drilling activities.

Aesthetic Quality

It is important to bear in mind that determining a visual resource in absolute terms is not achievable. Evaluating a landscape's visual quality is both complex and challenging, as many quality standards apply and it is largely subjective, with individuals basing evaluations on experiences, their social level, and their cultural background. Furthermore, natural features are inherently variable. Climate, season, atmospheric conditions, region, and sub-region all affect the attributes that comprise the landscape.

Visual Absorption Capacity (VAC) can be described as the ability of an area to absorb physical modifications. Factors affecting VAC include *inter alia*, vegetation, the built environment, existing infrastructure, and topography. In terms of these factors, the receiving environment is perceived to have a low to medium VAC.

The prospecting activities will not modify the physical characteristics of the landscape significantly and can easily be rehabilitated upon completion.

7. Socio-Economic Environment

The proposed prospecting area falls within the Victor Khanye Local Municipality, According to Victor Khanye Local municipality's 2017-2022 IDP, it has been observed that many employment opportunities come from the mining sector followed by community services and then agriculture. Trade also contributes a better percentage in employment. Manufacturing, trade, and private household share almost the same percentage in terms employment whereas finance, utilities and transport contribute the least in absorbing labour.

Socio-economic information detailed in this section of the report provides an understanding of the need for economic development which to create employment opportunities. The high unemployment rate within the municipal area serves as an indicator of this requirement. Though no local employment opportunities are expected during the prospecting phase, the confirmation of a viable mineral resource and the possible establishment of a mine may aid to address unemployment challenges faced by the project affected communities.

8. Land Uses

8.1. Parties to be potentially affected by the prospecting activities:

The landowners and occupiers are likely to be affected by the proposed prospecting activities. 100m buffers will be developed to prevent any drilling activities to occur in proximity of the residents and their houses.

8.2. Description of the current land uses

Most of the study area is used for farming purposes. Residents have been observed within the farm area as well.

8.3. Description of specific environmental features and infrastructure on the site Environmental Features

The major sensitive features within the study area include:

- Houses and residents
- Faunal and floral communities

Infrastructure on the study area and in proximity

There are houses and companies around and the proposed project area, the residents that occupy these buildings (Photo 6)

Photo 6: Companies observed on site

Photo 7: Powerline observed on site

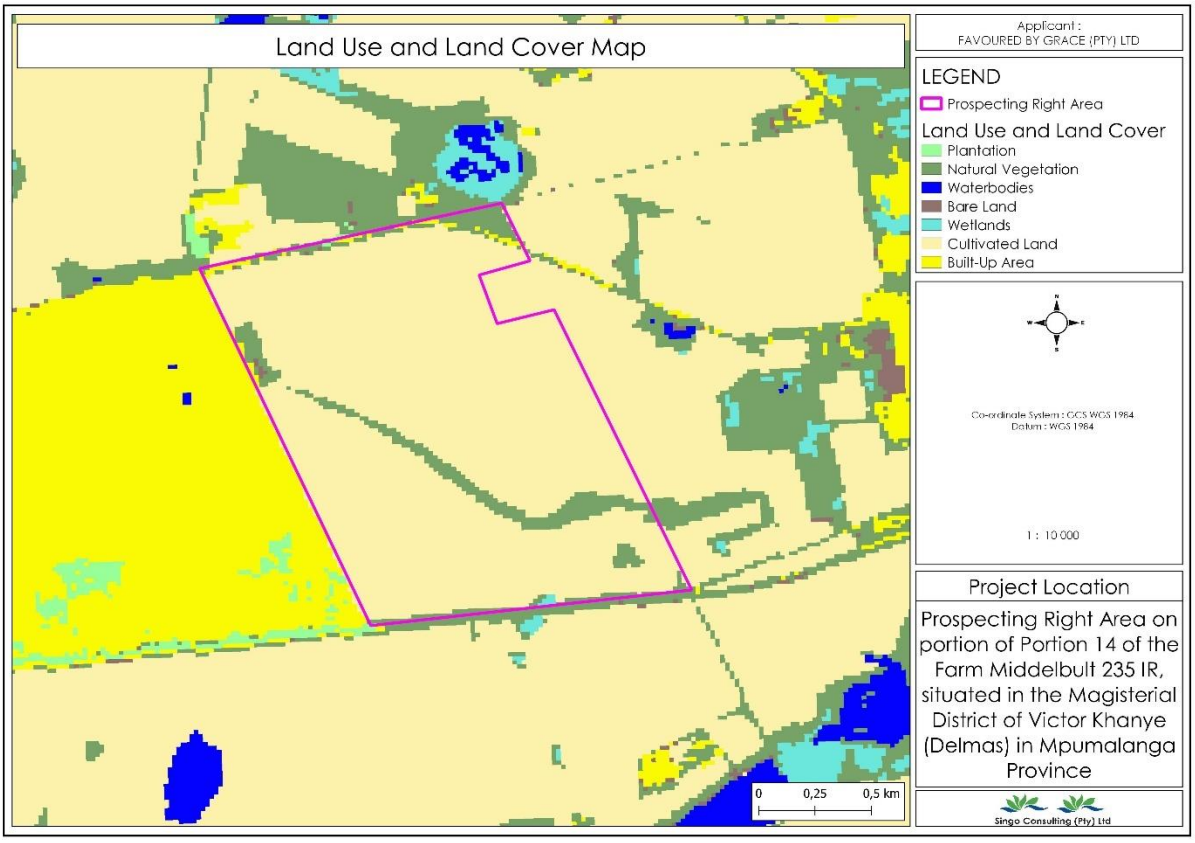


Figure 33: Types of land uses observed on site map *(Singo Consulting, 2022)*

Reference to the following section has been made from (2021/2022) Final Integrated Development Plan of Victor Khanye Local Municipality.

Municipal Administration Units and Wards

The Victor Khanye Local Municipality comprises of 9 Wards and a total population of approximately 84 151 (CS 2016). The municipality has an area of approximately 1 568 km² and includes the following major un-established urban areas or towns:

Table 7: Main places within the municipal area (2011/2016 Census)

No.	Places	Population size
1.	Delmas	3 496
2.	Botleng	30 793
3.	Sundra	3 252

4.	Eloff	1 391
5.	Remainder of the Municipality	17 275

Demographic Profile and Density

The below table provides data of the indicator according to Stats SA (2011 Census and 2016 Community Survey - CS).

Table 8: Municipal population size and growth trend (Victor Khanye LM encircled in red)

Local municipal area	Population		Average annual population growth	Projected 2030 numbers
	2011 (Census)	2016 (CS)	2011-2016	
Mbombela	588794	622158	1.3%	745 475
Bushbuckridge	541248	548760	0.3%	572 263
Emalahleni	395466	455228	3.2%	707 530
Nkomazi	393030	410907	1.0%	472 327
Govan Mbeki	294538	340091	3.3%	535 796
Thembisile Hani	310458	333331	1.6%	416 282
Steve Tshwete	229831	278749	4.4%	509 355
Dr JS Moroka	249705	246016	-0.3%	235 882
Mkhondo	171982	189036	2.1%	252 874
Chief Albert Luthuli	186010	187630	0.2%	192 952
Msukaligwa	149377	164608	2.2%	223 236
Lekwa	115662	123419	1.5%	152 022
Thaba Chweu	98 387	101895	0.8%	113 920
Dr Pixley Ka Isaka Seme	**83235**	**85395**	**0.6%**	**92 855**
Victor Khanye	75 452	84 151	2.5%	118 903
Umjindi	67 156	71 211	1.3%	85 326
Emakhazeni	47 216	48 149	0.4%	50 917
Dipaleseng	42 390	45 232	1.5%	55 715
Mpumalanga	4 039939	4 335964	1.6%	5 533629

Source: DEDT

Population & Household Growth

The Municipality had a population of 75 452 in 2011. This figure sprung to 84 151 at an average growth rate of 2.5% per annum. It is predicted that the by 2030 population growth is estimated to stand at 118 903 given the historic population growth per annum, indicative of the migration of labour attracted to the area as a result of the potential for economic growth and resultant job opportunity. The municipality has the 3rd smallest population in Mpumalanga province and 5.8% of total population of Nkangala District Municipality.

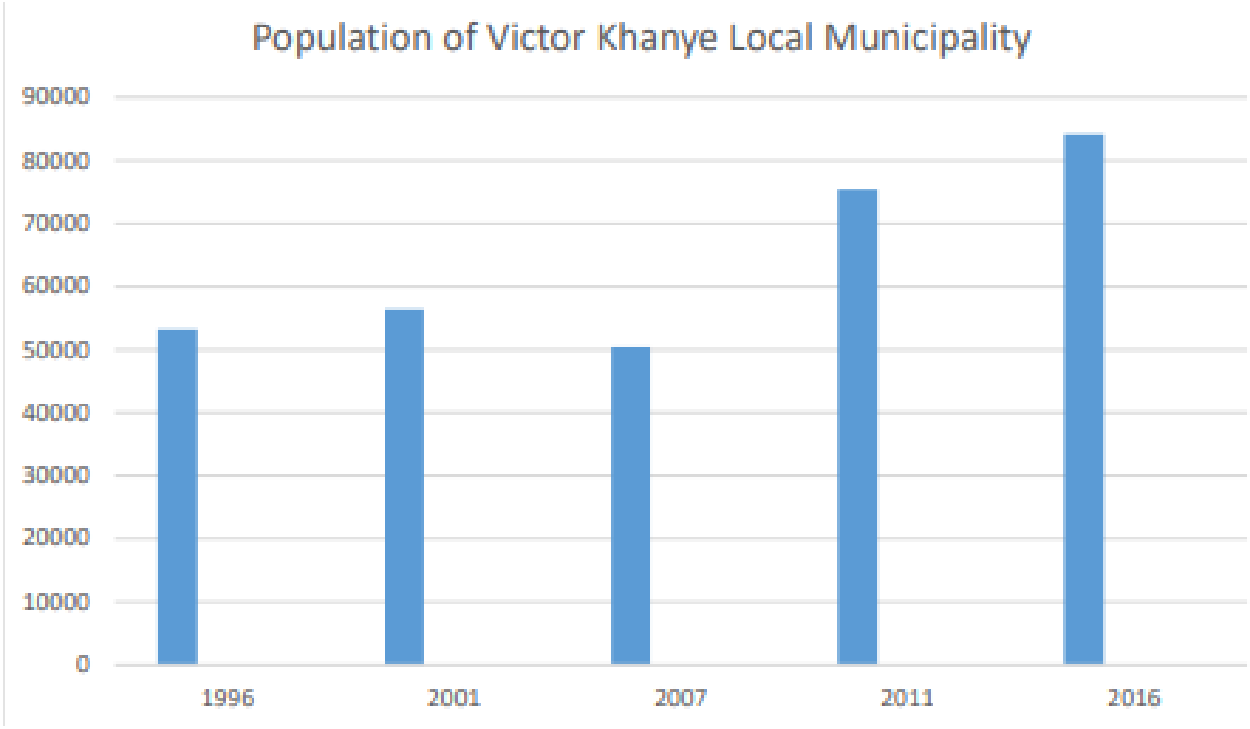


***Figure 34*: Population from 1996 to 2016**

Education indicators

Victor Khanye grade 12 pass rate decreased from 26.7% in 2011 to 26.0% in 2016. In addition, the percentage of people aged 20+ within the municipal area decreased from 11.8% in 2011 to 10.7% in 2016. Furthermore, the was yet a decrease of people who received higher education. Higher education was recorded at 7.7% in 2011 and 5.4% in 2016. The overall educational performance of the municipal area has decreased.

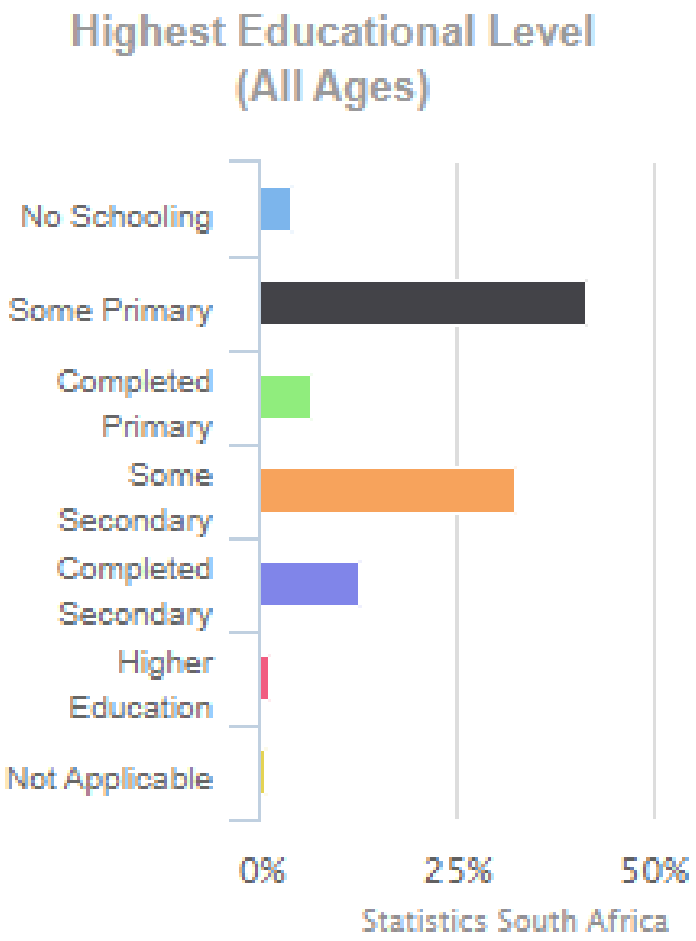


Figure 35: highest educational level for all ages (Source: Stats SA)

Matriculates wrote the year-end exam, which reflects an upward trend and attributed to Victor Khanye Local Municipality being ranked in 5th place in the province. However, this improved pass rate was not reflected in the university admission rate with only 26, 2% of scholars seeking to further their education status. When these statistics are compared with the unemployment statistics the assumption can be made that a high percentage of job seekers do not have the minimum education entry level.

Unfortunately, these job seekers will be restricted to unskilled manual work where the main employer in this sector of employment, namely agriculture, is receding as a leading employer. This poses a huge problem within the communities as the dependency syndrome increases and criminal activities increase.

Unemployment and Employment

Unemployment level has been reduced from 28.2 to 21.6 in terms of Global insight figures this reduction is as a result of an increase in investments in our local economy. The employment situation is expected to improve over the medium term with additional jobs expected in the mining sector. The latest statistic reflects that the employment level in the Victor Khanye Local Municipality is currently at 28, 9%. Based on the 2016 definition of Economically Active Population (EAP) of 30,415 the unemployment rate is reflected at 21.6, this represents an overall gain in employment compared to 2011.

This figure is high when we consider the economic activity in the area, but obviously impacted by the migration influx of job seekers. Leading industries in employment comprise of Trade (18, 7%), Agriculture (18, 2%) and Community Services contributing (14, 3%). However, the former two sectors are experiencing a decline in employment in the last few years whilst Community Services has increased and Mining as an employer has grown and now contributes 12, 7%.

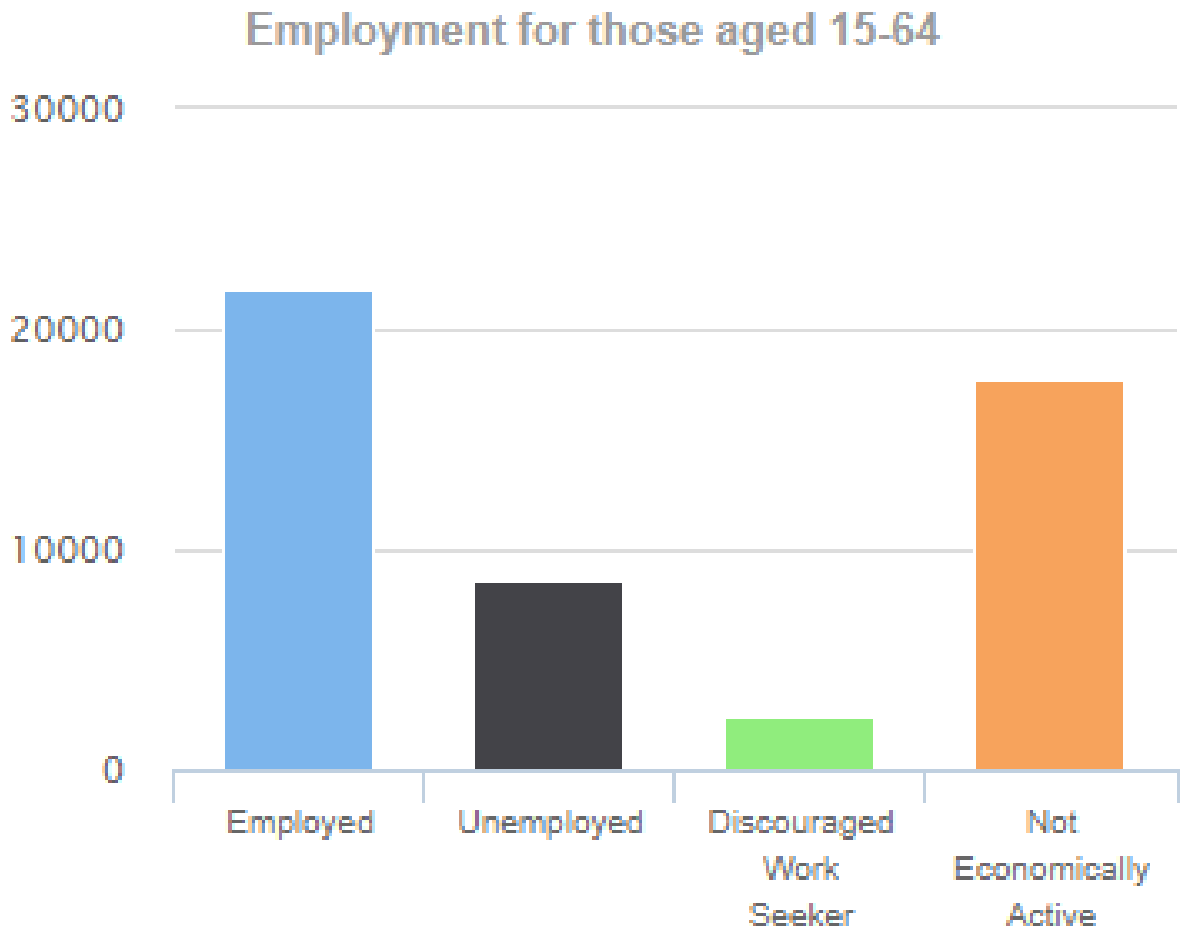


Figure 36: Employment of municipal area (Source: Stats SA)

Leading challenges facing the Municipality

According to the 2016 CS (Community Survey) of Stats SA, the 5 leading challenges facing the municipality as perceived by households in the municipal area the following:

- Lack of safe and reliable water supply.
- Lack of/inadequate employment opportunities (correlate with poverty driver information of the CS).
- Inadequate roads.
- Water and sanitation services.
- Inadequate/lack of housing.

Conclusively

The municipality has been under strain because of the influx of job seekers and high unemployment rate, and it faces challenges in accommodating the area's potential

educated young people due to a lack of economic opportunities. COVID-19 had a negative impact as well, as it caused many people to lose their jobs, significantly contributing to the unemployment rate. Although no local job opportunities are expected during the prospecting phase, confirmation of a viable mineral resource and the potential establishment of a mine may help address the challenges currently facing the communities most affected by the proposed project.

2.1 Impacts and associated activities

Table 9: The following are potential impacts associated with the prospecting activity:

Potential impacts	Phase	Reversible	Irreplaceable damage	Can impact be avoided
Disturbance to heritage/cultural features on site	Construction/ set-up; operational	No	Yes	Yes
Noise caused by the drilling rig travelling to and being established on each site, the diesel engine driving the drill, vehicles going to and from the drilling site and the voices of the drilling crew.	Construction/ set-up; operational	Yes	No	No
Visual disturbance caused by the drilling rig and other equipment, soil stockpiles, signage, and demarcations around site, etc.	Construction/ Set-up; Operational	Yes	No	No
Traffic disturbances caused by increase of vehicle movement around the drilling site.	Construction/ Set-up; Operational	Yes	No	Yes

Dust generated by the drilling operation and vehicles travelling over unpaved areas	Construction/Set-up; Operational	Yes	No	No
Disturbance soil and vegetation in the project area	Construction/ Set-up; Operational	Yes	No	No
Disturbance to animal life in the vicinity	Construction/ Set-up; Operational	Yes	No	Yes
Friction between local residents/landowners and prospecting personnel	Construction/ Set-up; Operational	Yes	No	Yes

It is not anticipated that the prospecting activities will have any lasting material effects on existing land uses on the prospecting areas or any other areas in their vicinity.

9. Impacts and risks identified including nature, significance, consequence, extent, duration, and probability of the impacts, including the degree to which these impacts.

(Provide a list of the potential impacts identified of the activities described in the initial site layout that will be undertaken, as informed by both the typical known impacts of such activities, and as informed by the consultations with affected parties together with the significance, probability, and duration of the impacts. Please indicate the extent to which they can be reversed, the extent to which they may cause irreplaceable loss of resources, and can be avoided, managed, or mitigated).

Table 10: Impact Significance Calculation – Construction, Operational and Rehabilitation Phase

Unite Number	Activity	Aspect	Impact	Significance Rating Before Mitigation Measures									Mitigation Measures	Sign	
				I	F	D	E	P	S	C	IS	SIGNIFICANCE		I	F
1.0	Employment of workers and procurement of materials	Social	Creation of employment. The nature of the project is one where a contractor is outsourced therefore the project is minuscle and only general workers may be employed	2	2	2	1	1.0	2.0	1.5	1.5	Moderate	• Emphasis to employ local individuals must be maximised, reducing the need for migrant labour; • The mine should prioritise employment of the local community members and contracts must include employment targets as part of their contractual agreements; • Employment requirements should be broadly publicised to ensure that job-seekers do not have unrealistic job expectations; • Liaison structures with the local police and community policing forums must be established and development of informal settlements within the proposed mining areas to be communicated to the forums for potential monitoring and addressing	1	1
2.0	Transportation of equipment and material to site	Air Quality	Dust generation emanating from the movement of the drill rig onto the site.	3	1	1	1	1.0	1.7	1.3	1.3	Low	• The area of disturbance must be restricted to the required footprint size; • Ensure that only vegetation within the designated areas is removed; • The drop heights used during the loading of the cleared soils into trucks should be minimised as far as possible; and • Dirt roads to be wetted by a water browser and/or any applicable dust suppressant so as to reduce dust plumes. Vehicles will obey speed limits.	2	1
		Topography and Visual Environment.	Topographical change Negative visual impact caused by driling	2	1	1	1	0.8	1.3	1.2	0.9	Very low	Ensure liaison with the local authorities for the maintenance and upkeep of roads; Ensure that dust suppressants are applied to gravel or unpaved roads that are in use; and Vehicles will obey speed limits.	2	1

		Surface and ground water		2	5	4	1	0.8	3.7	2.3	1.9	Low	All potential hydrocarbon spillages and leaks must be cleaned up immediately and the soils remediated; Spillage control kits will be readily available on site to contain the mobilisation of contaminants and clean up spills; All vehicles and machinery to be serviced in a hard park area or at an off-site location; Storage of hydrocarbons and explosives must be managed according to the Hazardous Substances Act, 1973 (Act No. 15 of 1973); Hydrocarbons and explosives storage facilities must be in a hard park bunded facility; and Vehicles with leaks must have drip trays in place.	2	5
		Soil	Soil compaction.	3	1	1	1	0.8	1.7	1.3	1.1	Low	If possible, vegetation clearance can be scheduled to coincide with low rainfall conditions when soil moisture is anticipated to be relatively low such that the soils are less prone to compaction(during dry seasons) The movement of heavy vehicle (drill rig) should be limited to existing roads.	2	1

3.	Use and storage of fuel and lubricants.	Soil	Soil contamination and degradation.	3	1	1	1	0.8	1.7	1.3	1.1	Low	All potential hydrocarbon spillages and leaks must be cleaned up immediately and the soils remediated; Spillage control kits will be readily available on site to contain the mobilisation of contaminants and clean up spills; All vehicles and machinery to be serviced in a hard park area or at an off-site location; Storage of hydrocarbons must be managed according to the Hazardous Substances Act, 1973 (Act No. 15 of 1973); and Vehicles with leaks must have drip trays in place.	2	5
		Surface Water	Impacts on surface water resources as a result of hydrocarbon spills.	3	3	1	2	0.6	2.3	2.2	1.3	Low	In case whereby contractors bring on site mobile bowsers and lubricants, these are to be stored in a bunded area when parked at the construction areas; All potential hydrocarbon spillages and leaks must be cleaned up immediately and the soils remediated; Spillage control kits will be readily available on site to contain the mobilisation of contaminants and clean up spills; All vehicles and machinery to be serviced in a hard park area or at an off-site location; Storage of hydrocarbons must be managed according to the Hazardous Substances Act, 1973 (Act No. 15 of 1973); and Vehicles with leaks must have drip trays in place.	2	3

		Groundwater	Groundwater contamination	4	3	1	2	0.6	2.7	2.3	1.4	Low	In case whereby contractors bring on site mobile bowsers and lubricants, these are to be stored in a bunded area when parked at the construction areas; All potential hydrocarbon spillages and leaks must be cleaned up immediately and the soils remediated; Spillage control kits will be readily available on site to contain the mobilisation of contaminants and clean up spills; All vehicles and machinery to be serviced in a hard park area or at an off-site location; Storage of hydrocarbons must be managed according to the Hazardous Substances Act, 1973 (Act No. 15 of 1973); and Vehicles with leaks must have drip trays in place.	2	2
4.0	4. Site clearance as a result of the preparations for temporary surface infrastructure.	Air Quality	Dust generation emanating from the activities associated with prospecting	4	4	1	3	1.0	3.0	3.0	3.0	Moderate	The area of disturbance must be restricted to the required footprint size; Ensure that only vegetation within the designated areas is removed; Gravel roads to be wetted by a water browser and/or any applicable dust suppressant so as to reduce dust plumes.	3	3
		Topography and Visual Environment	Disturbance of scenery due to site and machinery	3	1	1	1	1.0	1.7	1.3	1.3	Low	Machinery and site set up will only be present during the specified, communicated and agreed upon timeframe.	2	1

			Soil erosion and generation of dust.	3	3	1	2	0.8	2.3	2.2	1.7	Low	Dust can be mitigated by suppresants so that the construction phsae does npt produce bursts of dusts	3	2			
			Soil compaction.	3	3	1	1	0.8	2.3	1.7	1.3	Low	If possible, vegetation clearance and commencement of related activities (construction of haul road), can be scheduled to coincide with low rainfall conditions when soil moisture is anticipated to be relatively low such that the soils are less prone to compaction; The movement of heavy vehicle should be limited to existing roads	2	2			
			Loss of land capability and land use potential	2	1	1	1	0.8	1.3	1.2	0.9	Very low	• Any compacted soils must be ripped to alleviate compaction; • The footprint should be re-vegetated with the relavent seed mixture as soon as possible	2	1			
			Loss of vegetation communities.	2	1	1	1	0.6	1.3	1.2	0.7	Very low	• Ensure site clearing is restricted to the footprint of the designated areas to limit the degradation and destruction of the cultivated land • All activities are to occure after harvest so as to not disturb production of maize	2	1			

			The destruction or degradation of watercourse vegetation.	2	5	5	2	0.6	4.0	3.0	1.8	Low	• Ensure the flow of water through the moist grassland areas remain unchanged. • Monitor the presence of hydrophytes and species with an affinity for moist soils within the moist grasslands. Should such species decrease of be replaced by terrestrial species, then it is likely that the hydrological regime on the site has changed. • If moist grasslands are found to become drier, the Crinum species must be relocated to suitable habitat. • Input of sediment due to any related mining activities should be prevented at all cost. • Pollution of the surface and groundwater. Mitigation for this potential impact includes: o In the case of pollution of any surface or groundwater, the Regional Representative of the Department of Water Affairs must be informed immediately; o Store all litter carefully so it cannot be washed or blown into the water course; o Storage of potentially hazardous materials should be above any 100-year flood line or the functional wetland boundary (and its associated buffer zone). These materials include fuel, oil, cement, bitumen etc.; o Surface water draining off contaminated areas containing oil and petrol would need to be channelled towards a sump which will separate these chemicals and oils; o No uncontrolled discharges of water from the mine to any surface water resources shall be permitted. Any discharge points need to be approved by the relevant authority.	2	4

				Destruction of Maize filed.	3	2	1	1	1.0	2.0	1.5	1.5	Low	The contractors setting up should use the EMPR to oversee construction activities and ensure the following: • Keep the development footprint in Medium categories as small as possible. • A temporary fence or demarcation must be erected around the construction area (include the actual footprint, as well as areas where material is stored) to prevent access to adjacent sensitive vegetation. • Maintain site demarcations in position until the cessation of construction work. • Only remove vegetation where necessary and retain vegetation in place for as long as possible prior to removal. • Prohibit vehicular or pedestrian access into natural areas beyond the demarcated boundary of the construction area. • Formalise access roads and make use of existing roads and tracks where feasible, rather than creating new routes through naturally vegetated areas. • Implement a vegetation rehabilitation plan to ensure areas that can be rehabilitated post construction are adequately vegetated with indigenous grass species. • After construction, the land must be cleared of rubbish, surplus materials, and equipment, and all parts of the land must be left in a condition as close as possible to that prior to construction.	2	4

				Erosion and subsequent sedimentation or pollution of proximate moist grassland (watercourse).	3	3	1	1	0.8	2.3	1.7	1.3	Low	• Make use of existing roads and tracks where feasible, rather than creating new routes through cultivated areas.. • Do not remove any vegetation unnecesarily and only remove as per the specified extent. • Runoff from access roads must be managed to avoid erosion and pollution problems. • Protect all areas susceptible to erosion and ensure that there is no undue soil erosion resultant from activities within and adjacent to the construction camp and work areas. • Prevent spillage of construction material, oils or other chemicals, strictly prohibit other pollution. Ensure there is a method statement in place to remedy any accidental spillages immediately. • After construction clear any temporarily impacted areas of all foreign materials, re-apply and/or loosen topsoils and landscape to surrounding level.	3	2
			Surface and ground water	Siltation of surface water resources.	3	2	1	2	0.8	2.0	2.0	1.6	Low	• Ensure site clearing is limited to the designated areas	2	1
				Contamination of water resources	3	2	1	2	0.8	2.0	2.0	1.6	Low	• Ensure that no infrastructure, containers or machinery is leaking during the construction phase. • Groundwater monitoring of the water quality and levels must take place. A tray or cover must be in place for objects with hazourdous substances to avoid any possible leaks/spillage.	2	1
			Noise	Noise emanating from the construction of the site and vehicles impacting on surrounding sensitive receptors.	3	2	1	2	0.6	2.0	2.0	1.2	Low	• Ensure site clearing activities are only undertaken during daylight hours; • Ensure equipment and machinery is switched off when not in use.	2	2

5.0	Storage, use and control of fuel and lubricants to be used for the drilling activities.	Soil	Soil contamination and degradation	4	4	1	1	0.8	3.0	2.0	1.6	Low	• All potential hydrocarbon spillages and leaks must be cleaned up immediately and the soils remediated; • Spillage control kits will be readily available on site to contain the mobilisation of contaminants and clean up spills; • All vehicles and machinery to be serviced in a hard park area or at an off-site location; • Storage of hydrocarbons must be managed according to the Hazardous Substances Act, 1973 (Act No. 15 of 1973); • Hydrocarbons storage facilities must be in a hard park bunded facility; and • Vehicles with leaks must have drip trays in place.	2	4
		Groundwater	Groundwater contamination	5	3	1	2	1.0	3.0	2.5	2.5	Moderate	• All potential hydrocarbon leaks must be repaired immediately and spillages be cleaned up immediately and the soils remediated; • Spillage control kits will be readily available on site to contain the mobilisation of contaminants and clean up spills; • All vehicles and machinery to be serviced in a hard park area or at an off-site location; • Storage of hydrocarbons and explosives must be managed according to the Hazardous Substances Act, 1973 (Act No. 15 of 1973); • Hydrocarbons and explosives storage facilities must be in a hard park bunded facility; and • Vehicles with leaks must have drip trays in place; and • Groundwater monitoring of the water quality and levels must take place quarterly especially for the water supply boreholes to ensure a sustainable resource and identify impacts on local users.	4	2
6.0	Vehicular activity.	Air Quality	Fugitive dust generation emanating.	3	3	1	2	0.8	2.3	2.2	1.7	Low	• Ensure the area of disturbance during the prospecting activities is restricted to the extent of the drilling area • Ensure that dust suppressants are applied to gravel or unpaved roads that are in use; • Vehicles will obey speed limits. Maintenance equipment and heavy vehicle speeds should be reduced, where possible, to prevent dust emissions.	2	3
		Topography and Visual Environment	Topography change and disruption of surface water flow	3	2	1	2	0.8	2.0	2.0	1.6	Low	• Ensure that existing access roads are used as much as possible. • Ensure that dust suppressants are applied to gravel or unpaved roads that are in use; and • Vehicles will obey speed limits.	2	2

		Soil	Soil contamination and degradation.	3	3	1	2	1.0	2.3	2.2	2.2	Moderate	• All potential hydrocarbon spillages and leaks must be cleaned up immediately and the soils remediated; • Spillage control kits will be readily available on site to contain the mobilisation of contaminants and clean up spills; • All vehicles and machinery to be serviced in a hard park area or at an off-site location; • Storage of hydrocarbons and explosives must be managed according to the Hazardous Substances Act, 1973 (Act No. 15 of 1973); • Hydrocarbons and explosives storage facilities must be in a hard park bunded facility; and • Vehicles with leaks must have drip trays in place.	2	3
		Fauna and Flora	Loss of biodiversity and minimise impacts on floral species	3	2	1	2	0.8	2.0	2.0	1.6	Low	• Ensure that dust suppressants are applied to gravel or unpaved roads that are in use; • Vehicles will obey speed limits.	2	2
		Wetlands and Aquatic Ecology	Contamination and sedimentation of the wetland systems and aquatic ecosystems	2	2	1	2	1.0	1.7	1.8	1.8	Low	• Ensure a Storm Water Management Plan is implemented; • Ensure that dust suppressants are applied to gravel or unpaved roads that are in use and exposed surfaces; • Cover the road going trucks from the tip to KPS with a tarpaulin to prevent coal dust generation; • Vehicles will obey speed limits; and • Implement a biannual Aquatic Monitoring Programme to monitor potential impacts and implement corrective actions, should it be required.	2	1
		Surface Water	Contamination and sedimentation of clean water resources.	3	2	1	2	0.8	2.0	2.0	1.6	Low	• Ensure that dust suppressants are applied to gravel or unpaved roads that are in use and exposed surfaces; • Vehicles will obey speed limits; and • Monitor surface water resources arounhd project area to identify potential contamination.	2	1

		Noise	noise emanating from mining and vehicular activities impacting on surrounding sensitive receptors.	4	4	1	2	1.0	3.0	2.5	2.5	Moderate	• Prospecting related machines and vehicles should be serviced prior to commencement of activities and should there be an issue the equipment must be serviced immediately to avoid futher genetration of noise outside that of the drilling • Ensure equipment and machinery is switched off when not in use. • Adhere to the set speed limit in accordance to the Management Plan.	2	4
		Traffic	Degradation of the road structures resulting in potential health and safety risks and soil erosion.	3	2	1	2	0.8	2.0	2.0	1.6	Low	• existing roads must be used as much as possible. Road use should remain in the working hours stipulated in the management programme. • Adhere to the set speed limit in accordance to the Management Plan.	2	2
7.0	Waste and sewage generation and disposal.	Topography and Visual Environment	Topography change	2	3	1	2	0.8	2.0	2.0	1.6	Low	• Waste must be stored away from surface water and drainage lines; and • General and hazardous waste must be removed and disposed of frequently at a registered disposal site.	2	2
		Soil	Degradation and contamination of soil	4	3	1	2	0.8	2.7	2.3	1.9	Low	• Burying of any waste including domestic waste, empty containers on the site must be strictly prohibited; • Proper waste storage facilities should be available and used for the correct separation and storage of waste prior to collection and disposal; and • Generated waste must be removed to an approved disposal facility.	3	2

ENVIRONMENTAL ASPECT	NATURE OF THE IMPACT		IMPACT STATUS	MAGNITUDE	EXTENT	DURATION	REVERSIBILITY	IRREPLACEABILITY	PROBABILITY	SIGNIFICANCE PRE-MITIGATION	MITIGATION POTENTIAL	SIGNIFICANCE POST-MITIGATION	CONFIDENCE RATING	CUMULATIVE IMPACTS
		Surface Water	Contamination of clean water resources.	4	3	1	2	1.0	2.7	2.3	2.3	Moderate	• The sewer waster collected from the workings must be disposed of at a licensed sewage treatment facility; • Monitor surface water resources up and downstream of the Project area to identify potential contamination; • Remove core log after analysis • Waste must be separated at source and stored in appropriately designated areas for disposal at a licensed facility or by a reputable contractor.	3	2

10. Methodology used in determining and ranking the nature, significance, consequences, extent, duration, and probability of potential environmental impacts and risks

(Describe how the significance, probability, and duration of the aforesaid identified impacts that were identified through the consultation process was determined to decide the extent to which the initial site layout needs revision).

A "significant impact" is defined as it is defined in the EIA Regulations (2014): "an impact that may have notable effect on one or more aspects of the environment or may result in non-compliance with accepted environmental quality standards, thresholds or targets and is determined through rating the positive and negative effects of an impact on the environment based on criteria such as duration, magnitude, intensity and probability of occurrence". The objective of this EIA methodology is to serve as a framework for accurately evaluating impacts associated with current or proposed activities in the biophysical, social, and socio-economical spheres. It aims to ensure that all legal requirements and environmental considerations are met to have a complete and integrated environmental framework for impact evaluations.

The process of determining impacts to be assessed is one of the most important parts of the environmental impact assessment process. It is of such high importance because the environmental impacts identified can and are often linked to the same impact stream. In this method all impacts on the biophysical environment are assessed in terms of the overall integrity of ecosystems, habitats, populations, and individuals affected. For example, the removal of groundcover for the sloping or scraping of an embankment, can lead to higher amounts of water runoff which increases the rate of erosion. Further down in the river the amount of sediment increases because of the increased erosion. Several fish species cannot endure the high amount of sediment and moves off. The habitat is thus changed or in the process of changing. Thus, one needs to understand that the root of the problem (removal of groundcover) is assessed in terms of the degree of change in the health of the environment and/or components in relation to their conservation value. Thus, if the impact of removal of groundcover of a definable system is high and the conservation value is also high then the impact of removal of groundcover is highly significant.

The Environmental Impact Assessment (EIA) 2014 Regulations promulgated in terms of Sections 24 (5), 24M and 44 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) [as amended] (NEMA), requires that all identified potential impacts associated with the proposed project be assessed in terms of their overall potential significance on the natural, social and economic environments. The criteria identified in the EIA Regulations (2014) include the following:

- Nature of the impact;
- Extent of the impact;
- Duration of the impact
- Probability of the impact occurring;
- Degree to which impact can be reversed;
- Degree to which impact may cause irreplaceable loss of resources;
- Degree to which the impact can be mitigated; and
- Cumulative impacts.

The evaluation of impacts is conducted in terms of the criteria detailed in the Tables below. The various environmental impacts and benefits of this project are discussed in terms of impact status, extent, duration, probability, and intensity. Impact significance is regarded as the sum of the impact extent, duration, probability and intensity and a numerical rating system has been applied to evaluate impact significance; therefore, an impact magnitude and significance rating is applied to rate each identified impact in terms of its overall magnitude and significance.

Impact Assessment Methodology

By considering the root cause of the issue in this way, the probability that the activity undertaken does or may result in an impact, can be determined. The associated impact can then be assessed to determine its significance and to define mitigation measures or management measures to address the impact.

The following definitions therefore apply:

- An activity is a distinct process or task undertaken by an organization for which a responsibility can be assigned. Activities also include facilities or pieces of infrastructure that are possessed by an organization;
- An environmental aspect is an 'element of an organization's activities, products and services which can interact with the environment. The interaction of an aspect with the environment may result in an impact;
- Environmental impacts are the consequences of these aspects on environmental resources or receptors of particular value or sensitivity, for example, disturbance due to noise and health effects due to poorer air quality;
- Receptors can comprise, but are not limited to, people or human-made systems, such as local residents, communities and social infrastructure, as well as components of the biophysical environment such as aquifers, flora and paleontology. Impacts on the environment can lead to changes in existing conditions; the impacts can be direct, indirect or cumulative;
- Direct impacts refer to changes in environmental components that result from direct cause-effect consequences of interactions between the environment and project activities. Indirect impacts result from cause-effect consequences of interactions between the environment and direct impacts; and
- Cumulative impacts refer to the accumulation of changes to the environment caused by human activities.

Assessment of Impact Significance

The accumulated knowledge and the findings of the environmental investigations form the basis for the prediction of impacts. Once a potential impact has been determined, it is necessary to identify which project activity will cause the impact, the probability of occurrence of the impact, and its magnitude and extent (spatial and temporal). This information is important for evaluating the significance of the impact, and for defining mitigation and monitoring strategies. The aspects and impacts identified are therefore described according to the following:

(a) Nature of the impact

The nature of an impact can be defined as: "a brief description of the impact being assessed, in terms of the proposed activity or project, including the socio-economic or environmental aspect affected by this impact".

(b) The status of the impact:

	Status	Description
STATUS	**Positive (+)**	**A benefit to the holistic environment.**
	Negative (-)	**A cost to the holistic environment.**
	Neutral (N)	**No cost or benefit to the holistic environment.**

(c) Magnitude of the impact

The MAGNITUDE of an impact can be defined as: "a brief description of the intensity or amplitude of the impact on socioeconomic or environmental aspects".

Determining the magnitude of an impact			
	Magnitude	**Score**	**Description**
MAGNITUDE **Magnitude / intensity of impact (at the specified scale)**	**Zero**	**1**	**Natural and/or social and/or functions processes remain unaltered.**
	Very low	**2**	**Natural and/or social functions and/or processes are negligibly altered.**
	Low	**3**	**Natural and/or social and/or functions processes are slightly altered.**
	Medium	**4**	**Natural and/or social and/or functions processes are notably altered.**
	High	**5**	**Natural and/or social and/or functions processes severely altered.**

(d) Extent of the impact

The EXTENT of an impact can be defined as: "a brief description of the spatial influence of the impact or the area that will be affected by the impact".

Determining the extent of an impact			
EXTENT	**Extent**	**Score**	**Description**

Extent or spatial influence of impact	**Footprint**	**1**	**Only as far as the activity, such as footprint occurring within the total site area**
	Site	**2**	**Only the site and/or 500m radius from the site will be affected**
	Local	**3**	**Local area / district (neighbouring properties, transport routes and adjacent towns) is affected**
	Region	**4**	**Entire region / province is affected.**
	National	**5**	**Country is affected**

(e) Duration of the impact

The DURATION of an impact can be defined as: "a short description of the period of time the impact will have an effect on aspects".

Determining the duration of an impact			
	Extent	**Score**	**Description**
DURATION **Duration of the impact**	**Short term**	**1**	**Less than 2 years**
	Short to medium term	**2**	**2 – 5 years**
	Medium term	**3**	**6 – 25 years**
	Long term	**4**	**26 – 45 years**
	Permanent	**5**	**46 years or more**

(f) Degree to which impact can be reversed

The REVERSIBILITY of an impact can be defined as: "the ability of an impact to be changed from a state of affecting aspects to a state of not affecting aspects".

Determining the reversibility of an impact			
	Reversibility	**Score**	**Description**
REVERSIBILITY	**Completely reversible**	**1**	**Impacts can be reversed through the implementation of minimal mitigation measures and rehabilitation with negligible residual effects.**
	Nearly completely reversible	**2**	**Impacts can nearly be completely reversed through the implementation of mitigation measures and rehabilitation, with marginal residual effects.**
	Partly reversible	**3**	**Impacts can be partly reversed through the implementation of mitigation measures and rehabilitation with moderate residual effects.**

	Nearly irreversible	**4**	**Impacts can be mitigated, but only marginally reversed through the implementation of mitigation measures and rehabilitation with severe residual effects.**
	Irreversible	**5**	**Impacts are permanent and can't be reversed by the implementation of mitigation measures or rehabilitation is not viable.**

(g) Degree to which impact may cause irreplaceable loss of resources

The irreplaceability of an impact can be defined as "the number of resources that can/can't be replaced".

Irreplaceability = Magnitude + Extent + Duration + Reversibility

Degree to which impact may cause irreplaceable loss of resources			
IRREPLACEABILITY Irreplaceable loss of resources	**Irreplaceability**	**Score**	**Description**
	No loss	**0**	**No loss of any resources**
	Very Low	**1 - 5**	
	Low	**6 - 10**	**Marginal loss or resources**
	Medium	**11 - 15**	**Significant loss of resources**
	High	**16 - 20**	**Complete loss of resources**

(h) Probability of the impact occurring

The PROBABILITY of an impact can be defined as: "the estimated chance of the impact happening".

Determining the probability of an impact			
PROBABILITY	**Probability**	**Score**	**Description**
	Unlikely	**1**	**Unlikely to occur (0 – 15% probability of impact occurring)**
	Possible	**2**	**May occur (15 – 40% chance of occurring)**
	Probable	**3**	**Likely to occur (40– 60% chance of occurring)**
	Highly Probable	**4**	**Between 60% and 85% sure that the impact will occur**
	Definite	**5**	**Will certainly occur (85 - 100% chance of occurring)**

(i) Significance of Impacts - Pre-Mitigation

The SIGNIFICANCE can be defined as:" the combination of the duration and importance of the impact, in terms of physical and socio-economic extent, resulting in an indicative level of mitigation required".

The significance of an impact is determined as follows:

Significance = Irreplaceability x Probability

The maximum value is 100 significance points (SP). Environmental impacts were rated as either of Very High (VH) High (H), Medium (M), Low (L) or Very Low (VL) significance on the following basis:

Table 11: Significance Rating (SR) Basis.

Score	Significance
0	Neutral
1 to 20	Very low
21 to 40	Low
41 to 60	Medium
61 to 80	High
81 to 100	Very high

(j) Degree to which the impact can be mitigated

The degree to which an impact can be MITIGATED can be defined as: "the effect of mitigation measures on the impact and its degree of effectiveness".

	Determining the mitigation potential of an impact		
	Degree	Calculation	Description
MITIGATION POTENTIAL	High	Pre-mitigation SR / 3 = Post Mitigation SR	Impact 100% mitigated
	Medium	Pre-mitigation SR / 2 = Post Mitigation SR	Impact >50% mitigated

	Low	**Pre-mitigation SR / 3 = x** **Then:** **Pre-mitigation SR – x = Post** **Mitigation SR**	**Impact <50% mitigated**

(k) Significance of Impacts Post-Mitigation

The SIGNIFICANCE can be defined as:" the combination of the duration and importance of the impact, in terms of physical and socio-economic extent, resulting in an indicative level of mitigation required".

The significance of an impact is determined as follows:

Significance = Irreplaceability x Probability

Table 12: Significance Rating

Score	Significance
0	**Neutral**
1 to 20	**Very low**
21 to 40	**Low**
41 to 60	**Medium**
61 to 80	**High**
S	**Very high**

(l) Confidence rating

CONFIDENCE in the assessment of an impact can be defined as the:" *level of certainty of the impact occurring*".

Determining the confidence rating of an impact			
CONFIDENCE RATING	**CONFIDENCE**	**Certain**	**Amount of information on and/or understanding of the environmental factors that potentially influence the impact is unlimited and sound**
		Sure	**Amount of information on and/or understanding of the environmental factors that potentially influence the impact is reasonable and relatively sound**

		Unsure	**Amount of information on and/or understanding of the environmental factors that potentially influence the impact is limited**

(m) Cumulative impacts

The effect of CUMULATIVE impacts can be described as:" the effect the combination of past, present and "reasonably foreseeable" future actions have on aspects".

Determining the confidence rating of an impact			
CUMULATIVE RATING	**CUMULATIVE EFFECTS**	**Low**	**Minor cumulative effects**
		Medium	**Moderate cumulative effects**
		High	**Significant cumulative effects**

10.1. The positive and negative impacts that the proposed activity (in terms of the initial site layout) and alternatives will have on the environment and the community that may be affected

(Provide a discussion in terms of advantages and disadvantages of the initial site layout compared to alternative layout options to accommodate concerns raised by affected parties).

The proposed prospecting activities to be undertaken include the use of both invasive and non-invasive prospecting techniques. There will therefore be physical disturbance to the application area although this disturbance will be limited to the identified borehole sites and not the entire application area. Another negative impact of the proposed activity would be the interference with landowners or communities and the existing land uses. The actual invasive work only covers a few properties within the application area itself and therefore the disturbance due to invasive work will be minimal.

The positive impact of the proposed activity is the discovery of an economically viable mineral resource within the identified Local Municipalities, whose economy is dependent of the mining industry.

It should be noted that this report made available to I&APs for review and comment and their comments and concerns will be considered in this BAR & EMPr. Furthermore,

it should be noted that the impact scores themselves will include the results of the public response and comment. Please refer to Section 10 for the Methodology used in determining and ranking the nature, significance, consequence, extent, duration and probability of potential environmental impacts and risks.

The following provides a description and assessment of the potential impacts identified in the impact assessment process. The topographical and geophysical surveys will see an increase in the use of access tracks by vehicles driving around the site. The access roads may over time and continuous use deteriorate and become damaged. The potential exists for a group of unfamiliar workers to enter the project area during the prospecting activities. This impact could potentially affect the local communities; however, the impact will be minimal as people on site will be limited to the Applicant, contractor, and geologists for the topographical and geophysical surveys.

Access to the application area for the topographical and geophysical survey, prospecting drilling and resource definition drilling will be required which may interrupt the existing land uses, such as grazing and residential developments. However, this impact will be minimal as it is of short duration. Approximately 0,9 ha of vegetation will be cleared during prospecting, however, care will be taken to be ensure that any protected species identified are relocated outside the footprint of the prospecting activities. Provisions have been made for the rehabilitation of all areas disturbed during prospecting, including access tracks.

The prospecting activities will generate general waste during the construction/ operational phase. This waste must be collected during site visits to be disposed of at appropriate landfill sites.

10.2. The possible mitigation measures that could be applied and the level of risk.

(With regard to the issues and concerns raised by affected parties provide a list of the issues raised and an assessment/ discussion of the mitigations or site layout alternatives available to accommodate or address their concerns, together with an assessment of the impacts or risks associated with the mitigation or alternatives considered).

The following sections provide a description and assessment of the mitigation measures for each potential impact identified in the impact assessment process. The impact scores below are reflective of the impacts post the implementation of mitigation measures. A second score indicating the final significance of each potential impact is also reflected below. This score indicates the degree of potential loss of irreplaceable resources, the cumulative nature of the impact, as well as the degree of public concern regarding the impact. It should be noted that this report will be made available to I&APs for review and comment and their comments and concerns will be addressed in the final report to be submitted to the DMRE for adjudication. Furthermore, it should be noted that the impact scores themselves will include the results of the public response and comment. The results of the public consultation will be used to update the impact scores upon completion of the public review period, where after the finalized report will be submitted to the DMRE for adjudication.

The following mitigation types have been associated with the potential impacts identified:

- Avoid and control through implementation of EMPr mitigation measures (e.g., speed limit enforcement, vehicle maintenance);
- Avoidance and control through preventative measures (e.g., site security, code of conduct);
- Remedy through application of mitigation measures in EMPr;
- Avoid and control through implementation of preventative measures (e.g., monitoring, communication with landowners, emergency response procedures);
- Avoid through implementation of preventative measures (e.g., consultation and communication);
- Avoid and remedy impacts and risks to the community through ongoing communication with the community. In this regard, quarterly community meetings shall be held with the affected communities.
- Avoid through implementation of suitable progressive rehabilitation and soil management;
- Avoid and control through implementation of EMPr mitigation measures (e.g., Spill prevention, Hydrocarbon Storage);

- Avoid through preventative measures (e.g., bunding, spill kits);
- No invasive prospecting activities to be undertaken within 500m of a watercourse.
- Should any watercourse be affected, then the necessary water use licenses should be obtained from the Department of Water and Sanitation.
- No ablution of site laydown areas is to be located within 500m of a watercourse.
- Where shallow aquifers are encountered, a survey of the drinking water/ livestock watering boreholes should be undertaken (within 100 m of the prospecting borehole sites). A detailed groundwater monitoring programme should be developed for these drinking water/ livestock watering boreholes and pre- and post-prospecting water quality samples should be taken.
- Where drinking water/ livestock watering boreholes are to be affected then the advice of a geohydrologist should be sought with regards to the need for plugging and casing of the prospecting boreholes.
- Remedy through clean-up and waste disposal; and
- Avoid and control through implementation of preventative measures (e.g., location of toilets, spill prevention, waste management).

The following impacts will result from the proposed prospecting activities:

- Job creation
- Clearance of vegetation
- Compacting of soils
- Drilling impact on identified lithic scatters
- Deterioration and damage to existing access roads and tracks
- Safety and security risks to landowners and lawful occupiers
- Interference with existing land uses
- Generation and disposal of waste
- Contamination of surface and groundwater
- Introduction/invasion by alien species
- Noise
- Impact on fauna

- Pollution of soils
- Dust
- Erosion due to vegetation clearance
- Impact on surface water features
- Impact on groundwater
- Loss of fossil heritage

11. Motivation where no alternative sites were considered

Prospecting is conducted in phases, where the activities and location of drilling and trenching to sample soil are dependent on the previous phase. Therefore, the specific locations and extent of soil sampling and diamond core drilling cannot be predetermined. The overall prospecting area is indicated in Figure 1. Areas to be avoided in terms of sensitivities are also indicated on the sensitivity maps in this report. Positioning of invasive prospecting planned in the sensitive areas and buffer zones should be conducted with a suitably qualified ecologist to avoid or minimize the destruction of any sensitive vegetation or habitats occurring in these areas.

Since exploration is temporary in nature, no permanent structures will be constructed. Negotiations and agreements will be made with the farm owners to use any existing infrastructure like access roads. The location of the property is in an area where the geological formation that is known to host the desired mineralization.

11.1. Statement motivating the alternative development location within the overall site

(Provide a statement motivating the final site layout that is proposed)

The proposed project area as discussed above, has been selected due to the geology of the site and the anticipated favourable tectono-stratigraphic setting of the proposed prospecting area. The land or properties affected are mostly remain unused and as a result, the potential discovery of viable mineral resources within the proposed project area would be beneficial in terms of diversifying the use of land in the area. Negotiations and agreements will be made with the farm owners to use any existing infrastructures like access roads and farmhouses. Negative impacts identified above will be mitigated through implementation of the proposed mitigation measures as detailed in the EMPr. Where negative impacts cannot be avoided, rehabilitation will be undertaken.

12. Full description of the process undertaken to identify, assess and rank the impacts and risks the activity will impose on the preferred site (in respect of the final site layout plan) through the life of the activity

(Including (i) a description of all environmental issues and risks that were identified during the environmental impact assessment process and (ii) an assessment of the significance of each issue and risk and an indication of the extent to which the issue and risk could be avoided or addressed by the adoption of mitigation measures).

- **Approach to the EIA**

An Environmental Impact Assessment (EIA) is a good planning tool. It identifies the environmental impacts of a proposed development and assists in ensuring that a project will be environmentally acceptable and integrated into the surrounding environment in a sustainable way.

The Basic Impact Assessment for this project complies with the National Environmental Management Act (1998) (as amended) and the NEMA EIA Regulations (2014) and guidelines of the Department of Environmental Affairs (DEA). The guiding principles of an EIA are listed below.

- **Guiding principles for an EIA**

The EIA must take an open participatory approach throughout. This means that there should be no hidden agendas, no restrictions on the information collected during the process and an open-door policy by the proponent. Technical information must be communicated to stakeholders in a way that is understood by them and that enables them to meaningfully comment on the project.

There should be ongoing consultation with interested and affected parties representing all walks of life. Sufficient time for comment must be allowed. The opportunity for comment should be announced on an on-going basis. There should be opportunities for input by specialists and members of the public. Their contributions and issues should be considered when technical specialist studies are conducted and when decisions are made.

- **Information gathering**

Early in the Basic Assessment process, the Environmental Assessment Practitioner (EAP) identified the information that would be required for the impact assessment and the relevant data were obtained. In addition, available information about the receiving environment was gathered from reliable sources, interested, and affected parties, previous documented studies in the area and previous EIA Reports. The project team visited the site to gain first-hand information and an understanding of the existing operations and the proposed project.

- **Specialist Assessments**

The following specialist studies will be conducted:

- Soil study
- Hydrology study
- Hydrogeological study

The main objective of the specialist studies is to provide independent scientifically sound information on issues of concern relating to the project proposal.
The findings and recommendations identified by the various specialist studies undertaken, were incorporated into the Basic Impact Assessment.

- **Legislative Framework**

The legal requirements were described and assessed in detail.

- **Alternatives**

Prospecting is conducted in phases, where the activities and location of drilling and trenching to sample soil are dependent on the previous phase. Therefore, the specific locations and extent of soil sampling and core drilling cannot be predetermined.

The following alternatives were investigated as feasible alternatives:

- The property on which or location where it is proposed to undertake the activity

Portion of portion 14 of the farm Middelbult 235 IR, under the Magisterial District of Delmas, Mpumalanga Province. The proposed area is situated approximately 4.16 km Southwest of Delmas. See Figure 1 for the locality map.

- The type of activity to be undertaken

Main activities conducted to determine the Coal resources present in an economic feasible quality and quantity is drilling. The boreholes will be drilled with the diamond drilling method so the geologists can get a clear understanding of the actual subsurface setting of the lithologies. As outlined in the PWP all activities will be conducted in a phase approach whereby the execution of a new phase will depend on the results of the preceding phase. Prospecting activities will not compromise any future land uses on the study area.

- The design or layout of the activity

Since exploration is temporary in nature, no permanent structures will be constructed. Negotiations and agreements will be made with the farm owners to use any existing infrastructure like access roads.

- Portable ablution facilities will be used.
- Activities will be limited to the drilling of 15 boreholes to be determined by the geological formations found during prospecting.
- It is planned to use one rig for all drill holes.
- Rehabilitation will be closely controlled, and supervision will be focused.
- No changes to the layout are considered but with the geophysical survey information, the boreholes can be orientated to match the shape of the good quality of resource.

- The technology to be used in the activity

The technologies listed in the PWP have been selected as they are proven effective in the determination of resource viability within the proposed prospecting area. Some of the techniques employed in the non-invasive prospecting will include a literature survey, field reconnaissance/mapping, and geophysics survey of the geology, outcrops. Invasive technology alternatives have also been considered. It is hereby noted that the different phases and timeframes of the prospecting herein envisaged are, by their nature, dependent on the results obtained during the preceding phases

of such prospecting. The proposals set out in the Prospecting Work Programme are therefore made on the basis that results obtained during the preceding phases may necessitate reasonable changes and adaptations to such proposals, which will be reported as prescribed.

- The option of not implementing the activity

If the Prospecting Right is not granted, the potential to identify viable mineral resources could be lost. Historical prospecting and mining activities have taken place in the vicinity of the proposed prospecting right area and as such the proposed prospecting activities represent a continuation of surrounding land uses. Additionally, it allows for marginal land impacted on by historical prospecting and mining activities to be re-introduced into the economy.

- **Description and assessment of impacts identified**

A comprehensive list of all potential impacts of the prospecting as identified by the EAP and the specialists, are provided, and are assessed.

- **Environmental management programme**

An Environmental Management Programme containing mitigation, management and monitoring measures and specifying roles and responsibilities was compiled with specialist input and are included in this report.

- **Stakeholder engagement**

Registered interested and affected parties including relevant organs of state, are consulted with during the process. All their comments will be formally responded to and incorporated into the Final Basic Assessment Report and Environmental Management Programme that will be submitted to the competent authority.

12.1. Assessment of each identified potentially significant impact and risk

(This section of the report must consider all the known typical impacts of each of the activities (including those that could or should have been identified by knowledgeable persons) and not only those that were raised by registered interested and affected parties)

Potential impacts that may be caused by the proposed development will be identified using input from the following:

- Views of I&APs;
- Existing information;
- Specialist investigations;
- Site visit with the project team; and
- Legislation.

The following potential major direct, indirect and cumulative impacts were identified:

- Contamination and compaction of soils;
- Erosion;
- Contamination of ground- and surface water quality and decline in quantity;
- Impacts on biodiversity;
- Loss and displacement of fauna;
- Impacts on existing land use of the study and surrounding area;
- Destruction or loss of heritage features including graves and other historical sites of importance that may be uncovered during excavations;
- Decreased aesthetic value and impact on "Sense of Place";
- Poor air quality and decreased visibility due to dust pollution;
- Increased noise levels;
- Waste generation;
- Increased demand on service infrastructure and resources;
- Slight increase in traffic and need for maintenance of road infrastructure;
- Potential injury and loss of health and life of humans; and
- Altered Socio-Economic Environment (Positive or negative).

Table 13: Assessment of each identified potentially significant impact and risk

NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE if not mitigated	MITIGATION TYPE	SIGNIFICANCE if mitigated
• Minimal clearing of vegetation and topsoil. • Prospecting including diamond core drilling, logging, and sampling of the borehole core.	Minor loss and disturbance to topsoil because of clearing of vegetation and drilling and trenching. When vegetation is cleared and the topsoil is stripped, the soil's natural structure is disturbed and as a result the natural cycle is broken exposing the bare soil to erosion. Vehicles driving on these soils cause compaction of soils and reduces the soil's ability to be	Soil	Prospecting	**Low (-)**	**Prevent and reduce through management measures.** **Stripping of topsoil:** • Clearing of areas to take place a maximum of one month prior to intended prospecting in the area; • Stripping of topsoil will not take place during rain or excessive wind; and • The top 30 cm of vegetation and topsoil is to be stripped from the area to be prospected. **Storage of topsoil / overburden:** • Topsoil (top 30cm) is to be stored in predetermined topsoil berms, (+/- 5m) outside the boundary of the specific area; and • Topsoil stockpiles will be restricted to 1.5 to 2m in height. **Maintenance and monitoring of topsoil stockpiles:**	**Very Low (-)**

	penetrated by root growth. Compaction also increases erosion potential.				• The stored topsoil should be used as soon as possible in concurrent rehabilitation; • Weekly visual inspections to be conducted.	

NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE if not mitigated	MITIGATION TYPE	SIGNIFICANCE if mitigated
• Dust Suppression.	When soils are not stripped and stockpiled according to the soil stripping guidelines these soils would have lost their natural physical and chemical properties, reducing the topsoil's ability to be a plant growth medium. The above factors all contribute to a loss of the topsoil's ability to be a resource through alterations and removal.					

	Hydrocarbon spills on soil can occur where heavy machinery and vehicles are parked such as the hard park area because they contain large volumes of lubricating oils, hydraulic oils, and diesel	Soil	Prospecting	**Very Low (-)**	**Prevent and reduce and remedy through management measures.** • All vehicles and machinery will be regularly serviced to ensure they are in proper working condition and to reduce risk of leaks; • All leaks will be cleaned up immediately using an absorbent material and spill kits, in the prescribed manner; and	**Very Low (-)**
NAME OF ACTIVITY	**POTENTIAL IMPACT**	**ASPECTS AFFECTED**	**PHASE**	**SIGNIFICANCE** if not mitigated	**MITIGATION TYPE**	**SIGNIFICANCE** if mitigated
	to run. There is always a chance of these breaking down and/or leaking.				• The approved Integrated Water and Waste Management Plan to be implemented. ***<u>Hydrocarbons and hazardous waste</u>*** • All hazardous waste generated shall be kept separate and shall not be mixed with general waste; and • All hazardous waste shall be stored within a sealed drum on an impermeable surfaced area within the	

					central waste storage and transition area.	
	Stormwater, erosion and siltation impacts due to a lack of implementing temporary measures to manage stormwater runoff quantity and quality.	Surface water	Prospecting	**Low (-)**	**Prevent and reduce and remedy through management measures.** • A Stormwater Management Plan (SMP) to be developed for the collective area where prospecting will occur, (or the existing SMP updated, where applicable for present and future activities) and should include the management of stormwater during excavation, as well as the installation of temporary stormwater and erosion control measures during prospecting, followed up by rehabilitation of the area;	**Very Low (-)**

NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE if not mitigated	MITIGATION TYPE	SIGNIFICANCE if mitigated
					• The slopes of the area where prospecting activities will occur, should be profiled to ensure that they are not subjected to excessive erosion but capable of drainage run-off with minimum risk of scrub (hydrologic action by water that causes erosion). A maximum gradient of 1:3 is recommended; • If necessary, temporary diversion channels should be constructed ahead of the stockpiles (if relevant) to intercept clean run-off and divert it around disturbed areas into the natural drainage system downstream (down gradient) of the prospecting area; • Existing vegetation must be retained as far as possible to minimise erosion problems; • Rehabilitation of the prospecting area shall be planned and completed (after conclusion of the prospecting activities) in such a way that the run-off water (if any) will not cause erosion; • Visual inspections shall be done on a weekly basis with regard to the stability of the temporary water control structures, erosion and siltation (if required).	

NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE if not mitigated	MITIGATION TYPE	SIGNIFICANCE if mitigated
					• Sediment-laden run-off from cleared areas should be prevented from entering rivers and streams; • No river or surface water may be affected by silt emanating from the prospecting area • No wastewater may run freely into any of the surrounding naturally vegetated areas.	

	Contamination of stormwater runoff and groundwater, caused by chemicals such as hydrocarbon-based fuels and oils or lubricants spilled from heavy vehicles and machinery and fuel storage area.	Surface water and groundwater resources	Prospecting	**Very Low (-)**	**Prevent and reduce through management measures.** In accordance with Government Notice 704 (GN 704), the onsite management should: • Keep clean and dirty water separated; • Contain any dirty water within a system; and • Prevent the contamination of clean water. To achieve these objectives, the following stormwater management measures must be implemented on the site to ensure that those potential stormwater impacts are kept to a minimum: • Clean and dirty stormwater needs to be separated. Dirty stormwater may not be released	**Very Low (-)**

NAME OF ACTIVITY	**POTENTIAL IMPACT**	**ASPECTS AFFECTED**	**PHASE**	**SIGNIFICANCE** if not mitigated	**MITIGATION TYPE**	**SIGNIFICANCE** if mitigated
					into the environment and should be contained and treated on site;	

					• All temporary stormwater infrastructure (if any) on-site shall be maintained and kept clean throughout the prospecting period; • Immediate reporting of any polluting or potentially polluting incidents so that appropriate measures can be implemented; • Fuel and oil spills shall be treated immediately by appropriate spill kits. Several hydrocarbon absorption/remediation products (i.e. Spill kits) must be placed throughout the site; • Use of bunds or traps to ensure full containment of hydrocarbon and other hazardous materials are mandatory; • Any contaminated material is disposed of in an appropriate manner and the potential risks associated with such spills are limited; • Stormwater leaving the site must in no way be contaminated; • Ensure good housekeeping practices;	

NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE if not mitigated	MITIGATION TYPE	SIGNIFICANCE if mitigated
					• Increased runoff should be managed using berms and other suitable structures as required to ensure flow velocities are reduced; and • Removal of spills, rainwater and waste produced during clean-up of the bunds – shall be done in accordance to relevant specifications.	

	Minor loss of natural vegetation and destruction of habitat will result in associated loss of fauna and flora species.	Surface water	Prospecting	**Low (-)**	**Reduce through management measures.** • A suitably qualified specialist (ecologist) to accompany the site manager to demarcate areas for prospecting, to avoid damaging sensitive vegetation as identified during the specialist study and according to the sensitivity maps provided in this report; • Only vegetation falling directly into demarcated access routes or project sites should be removed; • No further vegetation clearance except for the removal of alien invasive species will be allowed; and • All remaining indigenous vegetation should be conserved wherever possible.	**Low (-)**
NAME OF ACTIVITY	**POTENTIAL IMPACT**	**ASPECTS AFFECTED**	**PHASE**	**SIGNIFICANCE** if not mitigated	**MITIGATION TYPE**	**SIGNIFICANCE** if mitigated
	Disruption in the movement patterns of fauna species may impact on biodiversity.	Biodiversity	Prospecting	**Low (-)**	**Prevent and reduce through management measures.** • Reduce the levels of disturbance on areas indicated by the Environmental Control Officer (ECO) as migratory routes, if any;	**Low (-)**

	Noise, dust, and potential light pollution, as well as migration of pollutants such as hydrocarbons in the soils, dust and emissions from vehicle and machinery altering air quality will all have an impact on biodiversity.				• Environmental awareness training should include that no hunting, trapping, or killing of fauna are allowed; • Any animals rescued or recovered will be relocated in a suitable habitat away from the prospecting operations and associated infrastructure; • Any lizards, snakes or monitors encountered should be allowed to escape to a suitable habitat away from disturbance. • No reptile should be intentionally killed, caught or collected during any phase of the project; and • General avoidance of snakes is the best policy if encountered. Snakes should not be intentionally harmed or killed and allowed free movement away from the area.	
	Introduction and spread of alien invasive species.	Biodiversity Soils	Prospecting	**Medium (-)**	**Prevent and control through management measures.**	**Low (-)**

NAME OF ACTIVITY	**POTENTIAL IMPACT**	**ASPECTS AFFECTED**	**PHASE**	**SIGNIFICANCE** if not mitigated	**MITIGATION TYPE**	**SIGNIFICANCE** if mitigated

	The moving of soil and vegetation resulting in opportunistic invasions after disturbance and the introduction of seed in construction materials and on vehicles. Invasion of alien plants can impact on hydrology, by reducing the quantity of water entering a watercourse through stormwater, and outcompete natural vegetation, decreasing the natural biodiversity. Once in a system, alien plants can spread throughout the catchment. If allowed to seed before control measures are implemented, alien plants can easily colonise and	Surface water ecosystems			• Regular removal of invasive alien species should be undertaken. This should extend through to the closure • phase of the project; and No spreading of alien vegetation onto adjacent properties should be allowed.	
NAME OF ACTIVITY	**POTENTIAL IMPACT**	**ASPECTS AFFECTED**	**PHASE**	**SIGNIFICANCE** if not mitigated	**MITIGATION TYPE**	**SIGNIFICANCE** if mitigated

	impact on downstream users.					
	Alteration of archaeological, historical, and palaeontological resources that may be discovered during earthworks and drilling.	Cultural Heritage	Prospecting	**Low (-)**	**Protect heritage resources through developing and implementing procedures.** • Prior to any development, construction or prospecting, a qualified archaeologist should conduct a site inspection on the areas demarcated for geotechnical drilling/prospecting. Proposed access roads to the drill sites should also be surveyed to avoid the destruction of heritage material; • Should the prospecting outcome result in further development or construction and mining, a full Phase2 Archaeological Impact Assessment must be conducted on the affected area if triggered; • Because archaeological artefacts generally occur below surface, the possibility exists that culturally significant material may be exposed during the development and construction phases, in which case all activities must be suspended pending further archaeological investigations by a qualified archaeologist. Also,	**Very Low (-)**

NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE if not mitigated	MITIGATION TYPE	SIGNIFICANCE if mitigated
					should skeletal remains be exposed during development and construction phases, all activities must be suspended and the relev heritage resources authority contacted (see National Heritage Resources Act (Act No. 1999) Section 36 (6)). Should culturally significant material or skeletal remains be exposed during prospecting all activities suspended pending further investigation qualified archaeologist (Refer to National Heritage and Resources Act, 25 of 1999 36(6)); • Should any objects of archaeological or palaeontological remains be found during activities, work must immediately stop in area and the Environmental Control Offic (ECO) must be informed; • The ECO must inform SAHRA and conta archaeologist and / or palaeontologis depending on the nature of the find, to as the importance and rescue them if neces (with the relevant SAHRA permit). No wo	

NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE if not mitigated	MITIGATION TYPE	SIGNIFICANCE if mitigated
					be resumed in this area without the permission of the ECO and SAHRA.	

	Visibility from sensitive receptors / visual scarring of the landscape as a result of the prospecting activities.	Aesthetic quality and sense of place	Prospecting	**Low (-)**	**Reduce through controlling management measures.** • Unnecessary lights should be switched off during the day and / or night to avoid light pollution; • If lighting is required, the lighting will be located in such a place and such a manner so as to minimise any impact on the surrounding community and fauna; • Install temporary lights that will not create a night sky glow; • Security lighting should be designed in such a way as to minimise emissions onto undisturbed areas on site and neighbouring properties. Light fittings should face downwards; • Housekeeping on site should be enforced; • Rehabilitation measures such as re-vegetation and plan to be implemented; • Reduce the prospecting period through careful planning and productive implementation of resources;	**Very Low (-)**

NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE if not mitigated	MITIGATION TYPE	SIGNIFICANCE if mitigated
					• Plan the placement of lay-down areas and any potential temporary prospecting camps in order to minimise vegetation clearing; • Restrict the activities and movement of workers and vehicles to the immediate prospecting site and existing access roads; • Ensure that rubble, litter and issued materials are managed and removed regularly; • Ensure that all infrastructure and the site and general surrounds are maintained in a neat and appealing way; and • Reduce and control dust through the use of approved dust suppression techniques.	

	Nuisance and health risks caused by an increase in the ambient noise level as a result of noise and vibration impacts associated with the operation of vehicles, machinery and equipment.	Health of landowners and occupiers Biodiversity	Prospecting	**Medium (-)**	**Reduce through controlling measures.** • Vehicles and machinery will be regularly serviced to ensure acceptable noise levels are not exceeded; • Silencers will be utilised where possible; • Heavy vehicle traffic should be routed away from noise sensitive areas where possible; • Noise levels should be kept within acceptable limits. All noise and sounds generated should	**Low (-)**

NAME OF ACTIVI	POTENTIAL IMPAC	ASPECTS AFFECTED	PHASE	SIGNIFICANC if not mitigated	MITIGATION TYPE	SIGNIFICANCE if mitigated
					adhere to South African Bureau of Stand (SABS) specifications for maximum allow noise levels for construction sites. No pure t sirens or hooters may be utilised except whe required in terms of SABS standards or i emergencies; • With regard to unavoidable very noisy ac in the vicinity of noise sensitive areas, th Manager (SM) should liaise with local reside and a suitably qualified ecologist and how bes to minimise impacts, and the local popula should be kept informed of the nature an duration of intended activities; • The SM should take measures to discou labourers from loitering in the area, causing noise disturbance; • Noise impacts should be minimised by restr the hours (between 06h00 and 18h00 on Monday to Friday, and 06h00 and 13h00 Saturdays), during which the offending a are carried out and, where possible, by insulatin machinery and/or enclosing areas of activity;	

NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE if not mitigated	MITIGATION TYPE	SIGNIFICANCE if mitigated
					• No noisy activities to occur on Sundays or public holidays; • Personal Protective Equipment to all persons working in areas where high levels of noise can be expected; • Signs where it is compulsory;	
	Increased dust pollution due to vegetation clearance and vehicles driving on gravel roads and drilling.	Aesthetic environment Sense of Place Air quality Biodiversity	Prospecting	**Medium (-)**	**Reduce through controlling measures.** • Dust suppression shall be implemented during dry periods and windy conditions; • All exposed surfaces should be minimised in terms of duration of exposure to wind and stormwater; • Excavation, handling and transportation of erodible materials shall be avoided under high wind conditions (excess of 35km/hr) or when a visible dust plume is present; • Ensure that the shortest routes are used for material transport; • Ensure that stockpile height is kept to a minimum; • Minimise travel speed on unpaved roads;	**Very Low (-)**

NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE if not mitigated	MITIGATION TYPE	SIGNIFICANCE if mitigated
					• Implement monthly site inspection to check for possible areas of dust generation not addressed or not effectively managed; • Spray areas to be cleared with water; • Ensure minimum travel distance between working areas and stockpiles; • Ensure that topsoil for stockpiles is sprayed with water before tipping to prevent dust generation; • Ensure graded areas are sprayed with water; • Minimise the amount of graded areas; • Load and offload material, as far as possible, downwind of topsoil stockpiles.	
	Gaseous emissions from vehicles and machinery may cause an impact on ambient air quality.	Health of landowners and occupiers	Prospecting	**Medium (-)**	• All vehicles and machinery will be regularly serviced to ensure they are in proper working condition and to reduce risk of leaks; • Proper planning of movements (vehicle trips) and working of machinery should take place, in order to avoid unnecessary trips and hours of operation.	**Low (-)**

	Generation of additional general waste, litter and building rubble and hazardous waste.	Biodiversity Health and safety Soil	Prospecting	**Medium (-)**	**Control through management measures.** • A central waste storage and transition area shall be established within the site camp;	**Low (-)**

NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE if not mitigated	MITIGATION TYPE	SIGNIFICANCE if mitigated
		Surface water systems			• The central waste storage and transition area shall be surfaced and demarcated appropriately; • Portable wheelie bins shall be placed throughout the site camp as well as at the remainder of the site and at all working areas in the field; • Wheelie bins shall be colour coded and labelled to identify the waste stream for which it is intended; • All portable wheelie bins and other containers shall be emptied at the central waste storage and transition area a minimum of once a week or when filled, as to avoid waste build-up; • The waste shall be removed (within 30 days) by a licensed waste service provider as shall be disposed of at a licensed waste landfill site and records of safe disposal (as required for hazardous wastes) shall be supplied to the Contractor. These records shall be kept on site by the ESM; • Wherever possible and practical, waste materials generated on site must be recycled; and	

NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE if not mitigated	MITIGATION TYPE	SIGNIFICANCE if mitigated
					• Waste specific (hazardous, timber, steel etc.) mitigation measures to be implemented.	
	Minor impact caused by need for services i.e. water, electricity and sewerage systems during the prospecting phase causing additional strain on natural resources and service infrastructure.	Natural resources including water and energy resources	Prospecting	**Low (-)**	**Reduce through controlling management measures.** • Energy savings measures to be implemented at the site e.g.: O No lights to be switched on unnecessarily; O Only security lights to be switched on at night; • Energy saving bulbs to be installed; and • Water should be recycled as far as possible to avoid any additional water usage.	**Very Low (-)**
	Minor change in traffic patterns as a result of traffic entering and exiting the site on the surrounding road infrastructure and existing traffic.	Traffic	Prospecting	**Low (-)**	**Reduce through controlling management measures.** • Where feasible heavy vehicles should not operate on public roads during peak hours; and • Heavy vehicles should adhere to the speed limit of the road.	**Very Low (-)**

	Nuisance, health and safety risks caused by increased traffic on and adjacent to the study area	Safety of workers, contractors and landowners	Prospecting	**Medium (-)**	**Prevent through controlling management measures.** • Drivers will be enforced to keep to set speed limits; • Trucks will be in a road-worthy condition;	**Very Low (-)**
NAME OF ACTIVITY	**POTENTIAL IMPACT**	**ASPECTS AFFECTED**	**PHASE**	**SIGNIFICANCE** if not mitigated	**MITIGATION TYPE**	**SIGNIFICANCE** if mitigated

	including cars, and heavy vehicles.	and occupiers			• Roads and intersections will be signposted clearly. Only main roads should be used; • Where feasible vehicles should not operate on public roads during peak hours; • Vehicles should adhere to the speed limit of the road; • Heavy vehicles should always travel with their headlights switched on; • Heavy vehicles should not stop on the road to pick up hitchhikers – No stopping on the road approaching the site will be allowed; • Mutau Mining Services (Pty) Ltd shall be responsible for ensuring that suitable access is maintained for public traffic to all relevant businesses and properties; and • All traffic accommodation measures are to conform to the latest edition of the South African Road Signs Manual.	

	Possibility of prospecting activities and workers causing veld fires, which can potentially cause	Biodiversity Health and safety of landowners,	Prospecting	**Medium (-)**	**Prevent through controlling management measures.** • All workers will be sensitized to the risk of fire;	**Very Low (-)**
NAME OF ACTIVITY	**POTENTIAL IMPACT**	**ASPECTS AFFECTED**	**PHASE**	**SIGNIFICANCE** if not mitigated	**MITIGATION TYPE**	**SIGNIFICANCE** if mitigated
	injury and or loss of life to workers and surrounding landowners, visitors and workers.	occupiers,and visitors workers			• Smoking is only allowed in designated smoking areas and disposal of cigarette butts safely in sand buckets; • The Applicant shall ensure that the basic firefighting equipment is available on the site; • Extinguishers should be located outside hazardous materials and chemicals storage containers; • Fire response and evacuation: o An Emergency Plan (including Fire Protection, Response and Evacuation Plan) is to be prepared by the Applicant and conveyed to all staff on the site' o Identify major risks to minimise the environmental impacts e.g., air pollution and contaminated effluent runoff.	

	Increased risk to public and worker safety: If not fenced off, the public and workers may fall into excavated areas and trenches.	Health and safety of landowners, occupiers of land, workers, visitors and	Prospecting	**Medium (-)**	• A health and safety plan in terms of the Mine Health and Safety Act (Act 29 of 1996) should be compiled and implemented to ensure worker safety; • A health and safety control officer should monitor the implementation of the health and safety plan for the operational phase;	**Very Low (-)**

NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE if not mitigated	MITIGATION TYPE	SIGNIFICANCE if mitigated
		the general public.			• A record of health and safety incidents should be kept on site and made available for inspection; • Any health and safety incidents should be reported to the Site Manager (SM) immediately; • First aid facilities should be available on site at all times; • Workers have the right to refuse work in unsafe conditions; • Material stockpiles or stacks should be stable and well secured to avoid collapse and possible injury to site workers. • Access to excavation must be controlled; • Excavated areas should be temporarily fenced-off; and • Excavations will be backfilled and landscaped as soon as possible.	
	Potential creation of very limited extent short term employment opportunities for the local community, during the prospecting phase.	Socio-economic	Prospecting	**Low (+)**	• Local labour to be sourced where possible.	**Low (+)**

NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE if not mitigated	MITIGATION TYPE	SIGNIFICANCE if mitigated
	Multiplier effects on local economy will be positive, but very limited in extent and only short term.	Socioeconomic	Prospecting	**Low (+)**	• Supplies to be bought locally as far as possible.	**Low (+)**

The supporting impact assessment conducted by the EAP must be attached as an appendix, marked Appendix – Please refer to Table 8 for the full impact assessment.

13. 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): -

LIST OF STUDIES UNDERTAKEN	RECOMMENDATIONS OF SPECIALIST REPORTS	SPECIALIST RECOMMENDATIONS THAT HAVE BEEN INCLUDED IN THE EIA REPORT (Mark with an X where applicable)	REFERENCE TO APPLICABLE SECTION OF REPORT WHERE SPECIALIST RECOMMENDATIONS HAVE BEEN INCLUDED.
Hydrogeological study	• On site there will be regular maintenance of the mobile toilets. • Once drilling his done, the team will rehabilitate the area and ensure the core is out of site. • Drilling within 100 meters of water resources will be avoided • The drilling machine used will be of minimum vibrations to avoid creating fissures in underlying rocks which could influence groundwater migration and leads to water contamination • Clearing of vast amount of vegetation will be avoided, this is to preserve infiltration. • Constant availability of waste bins; Compliance of National Environmental Management: Waste Management Act 59 of 2008. • Compliance of GN 704 4(b) and 7(a) and National Water Act 36 of 1998 (Chapter 3 –Part 4, Section 1 (a)(b).	X	Section 6.1.6 of this report

	• No onsite vehicle or machinery repairs such as changing oil. • No onsite storage of oil, diesel, or petrol. • Cores will be logged on an impervious surface and will be cleared from the site immediately after logging		
Hydrological study	The recommendations have been made: • On site there should be regular maintenance of the mobile toilets. • Once drilling, the team should rehabilitate the area and ensure the core is out of site • Drilling within 100 meters of water resources should be avoided. • Stormwater should be prioritised, and the management to prevent surface water contamination. • Clearing of vast amount of vegetation should be avoided, this is to preserve infiltration. • Stormwater measures which include the identified rivers and wetlands, should not be disrupted as they manage surface run off in an area. • The drilling activity should also take into consideration the shallow and fractured aquifer in the area. • No washing of vehicles on site should be allowed.	X	Section 6.1.6 of this report

	• Prohibition signs should be placed all around the prospecting area, such no ablution sign or site clearing.		
Soil study	• Pathways will be stripped when the soil is dry (as far as practical possible), as to reduce compaction; and • The pathways will be stripped according to the stripping guideline and management plan, and further recommendations contained within the rehabilitation plan. • The period of exposure of soil disturbances will be minimized through a planning schedule. • Absorbent kits will be made available near the drill rigs during drilling activities to prevent oil spills from contaminating the surrounding soil. • Drilling on steep slopes will be avoided, to prevent soil erosion.	X	Section 6.1.6 of this report

14. Environmental impact statement

14.1. Summary of the positive and negative impacts and risks of the proposed activity and identified alternatives

The positive implication of the Prospecting Right is the discovery of an economically viable mineral resource. Although non-invasive techniques will be utilized as part of the proposed prospecting activities. The implementation of the proposed mitigation measure will ensure that the negative implications and risks of the project are minimal.

The Potential positive impacts are as follows:

- Discovery of an economically viable mineral resources
- Employment contributing to the economy.
- Positive contribution to the South African Gross Domestic Product
- Concurrent rehabilitation during prospecting

The potential negative impacts are as follows:

- Clearance/Disturbance of vegetation;
- Compacting of Soils;
- Drilling impact on identified lithic scatters;
- Deterioration and damage to existing access roads and tracks;
- Safety and security risks to landowners and lawful occupiers;
- Interference with existing land uses;
- Generation and disposal of waste;
- Contamination of surface and ground water;
- Introduction/invasion by alien species;
- Noise;
- Impact on faunal species;
- Pollution of Soils;
- Dust;
- Erosion due to vegetation clearance;
- Impact on surface water features;
- Impact on groundwater;

- ❖ Loss of fossil heritage.

The EMPr has identified appropriate mechanisms for avoidance and mitigation of these negative impacts.

All the identified impacts will occur for a limited and the extent of the impacts will be localized. All the identified impacts can be suitably mitigated with the residual impact ratings being of low significance. After drilling activities have been completed and the drill pads rehabilitated to predrilling status, the impacts will cease to exist.

2.2 Final site map

Provide a map at an appropriate scale which superimposes the proposed overall activity and its associated structures and infrastructure on the environmental sensitivities of the preferred site indicating any areas that should be avoided, including buffers.

The specific locations of intrusive drilling activities will be determined during Phase 1 of the Prospecting Work Programme. All infrastructure to be developed will be mobile and temporary. Please refer to Appendix B.

2.2.1 Positive and negative impacts, and risks of the proposed activity and alternatives

Destruction or loss of Cultural and Heritage Resources during the construction/setup phase (although this is unlikely as no features of cultural/heritage significance have been identified on site).

Noise Generation from construction/set-up and operational activities of drilling.

Visual intrusion caused by the drilling activities in the largely rural setting.

Increase in traffic volumes near the drilling site during site establishment and prospecting.

Dust fall & nuisance from construction/set-up and drilling activities.

Soil and vegetation disturbance from drill pad preparation during the construction/set-up and operational phase as contractors rehabilitate one site and move to the next.

Animal life will be affected in the immediate vicinity of the drilling rig. It is anticipated that the noise and general activity will keep animals away from the site during prospecting.

Friction between residents/landowners and construction personnel during.

Employment will be created for the clearing of the land and establishing the drilling site.

2.2.2 Proposed impact management objectives and outcomes for inclusion in the EMPr

Based on the assessment and where applicable the recommendations from specialist reports, recording of proposed impact management objectives, and impact management outcomes for the development for inclusion in the EMPr, as well as for inclusion as conditions of authorisation.

The objectives of the EMPr will be to:

Provide sufficient information to strategically plan the prospecting activities as to avoid unnecessary social and environmental impacts.

Provide sufficient information and guidance to plan prospecting activities in a manner that would reduce impacts (both social and environmental) as far as practically possible.

Develop an approach that ensures environmental compliance.

Provide a management programme that is effective and practical for implementation.

Through the implementation of the proposed mitigation measures it is anticipated that the identified social and environmental impacts can be managed and mitigated effectively. Heritage/cultural resources can be managed by avoidance of known resources and though consultation with landowners/stakeholders. Contractor personnel will also be briefed of these sensitivities and consequences of any damage/removal of such features. Through the implementation of the mitigation and management measures it is expected that:

- Noise generation can be managed through consultation, restriction of operating hours and by maintaining equipment and applying noise abatement equipment if necessary.
- Visual intrusion can be managed through consultation with landowners/ stakeholders and by suitable siting of drill pads and use of screens (natural vegetation or shade cloth etc.).
- Traffic is managed to minimise congestion in and around the drilling site.
- Dust fall can be managed by application of wet suppression on exposed surfaces and use of water during drilling.
- Soil disturbance and clearance of vegetation at drill pad areas will be limited to the absolute minimum required and disturbed areas will be re-vegetated with locally indigenous species as soon as possible.
- Animal life is protected and always preserved and the prospecting activities have limited impact on the surrounding habitat.

Social friction with landowners can be managed by employing strong, experienced personnel with skills in public consultation and conflict resolution during stakeholder consultation phases. All prospecting personnel will be made aware of local conditions and sensitivities and trained to treat residents with respect and courtesy.

Employment is created during the prospecting- contributing to the local economic even if it is only on a temporary basis.

2.2.3 Aspects for inclusion as conditions of authorisation

Any aspects which must be made conditions of the Environmental Authorisation.

Maintain a minimum 500m (preferably 1000m) buffer from any infrastructure or dwelling;

Landowners and land occupiers should be engaged (re-consulted) at least 1 month prior to any site activities being undertaken once drill sites are known; and

A map detailing the drilling locations should be provided to the landowners as well as the DMR prior to commencement of prospecting activities.

14.2. Proposed impact management objectives and the impact management outcomes for inclusion in the EMPr;

(Based on the assessment and where applicable the recommendations from specialist reports, the recording of proposed impact management objectives, and the impact management outcomes for the development for inclusion in the EMPR as well as for inclusion as conditions of authorisation).

The following management objectives and impact management outcomes are recommended for inclusion in the EMPR:

- Biodiversity: Prevent and / or restrict the loss of indigenous fauna and flora as far as practically possible;
- Physical aspects: Prevent and / or restrict the impact on soils and surface water;
- Social Aspects: Ensure the health and safety of employees of Singo Consulting (Pty) Ltd and any contractors associated with the development and operation of the proposed activity as well as the surrounding community and visitors;
- Heritage: Ensure the protection of any potential heritage features or objects that may be excavated during the proposed development.

15. Aspects for inclusion as conditions of Authorization

(Any aspects which must be made conditions of the Environmental Authorization)

The following aspects are recommended to be included as conditions in the Environmental Authorisation:

- The EMPr is a contractual document and must be always implemented during the prospecting phase;
- An independent Environmental Control Officer (ECO) must be appointed to monitor the implementation of the EMPr and audit reports to be kept by the applicant;
- All contractors and employees of Favoured by Grace (Pty) Ltd must be made aware of the EMPr and its requirements as well as the impact of not implementing the measures of the EMPr;
- Copies of the EMPr, Integrated Environmental Authorisation and any emergency procedures and method statements, must be kept on site and be available on request of the Competent Authority.

16. Description of any assumptions, uncertainties, and gaps in knowledge.

(Which relate to the assessment and mitigation measures proposed)

The following assumptions, uncertainties, and gaps in knowledge are applicable to this BAR & EMPr:

The location of drill sites is not yet known and will be identified through the phased approach of the prospecting programme. This assessment is therefore based on a desktop approach at a broad scale and assuming that drilling could occur within the proposed Prospecting Right area. Once drill sites have been identified, then it is recommended that focus should be given to these sites to identify any cultural or heritage resources of significance, any ecologically significant areas that may occur as well as re-engaging landowners regarding the intention to access and conduct drilling activities on their property.

17. Reasoned opinion as to whether the proposed activity should or should not be authorized

17.1. Reasons why the activity should be authorized or not

In general, it is recognized that the proposed prospecting activities have the potential to pose various risks to the environment as well as to the residents or businesses in the surrounding area. However, based on the findings of this BA documented in this report, all impacts can be mitigated to insignificant levels.

This report shows that the proposed development has the potential to provide socio-economic benefits to the local and regional communities. The EAP therefore recommends that the proposed activities be approved on condition that the EMPR is strictly implemented and monitored for compliance.

Not implementing the prospecting activities will result in a loss of information on mineral reserves present on the study area. Should economically feasible reserves exist on the study area and the applicant cannot prospect, the opportunity to utilise the reserves for future mining and brickmaking will be lost, i.e., the minerals will be sterilized, and resultant socio-economic benefits will be lost.

The proposed prospecting activities have the potential to have a negative impact on the ecological environment as well as the social environment of the area. These impacts, however, can potentially be prevented, minimised, mitigated and managed to low and very low levels, as shown through the impact assessment.

17.2. Conditions that must be included in the authorisation

- The EMPR is a contractual document and must be always implemented during the prospecting phase;

- An independent Environmental Control Officer (ECO) must be appointed to monitor the implementation of the EMPR and audit reports to be kept by the applicant;
- All contractors and employees of Favoured by Grace (Pty) Ltd must be made aware of the EMPr and its requirements as well as the impact of not implementing the measures of the EMPr;
- Copies of the EMPr, Environmental Authorisation and any emergency procedures and method statements, must be kept on site and be available on request of the Competent Authority.

18. Period for which the Environmental Authorisation is required

This Environmental Authorisation is required for a period of 5 years.

19. Undertaking

(Confirm that the undertaking required to meet the requirements of this section is provided at the end of the EMPr and is applicable to both the Basic assessment report and the Environmental Management Programme report).

It is confirmed that the undertaking required to meet the requirements of this section is provided at the end of the EMPR and is applicable to both the BAR and the EMPR.

20. Financial provision

(State the amount that is required to both manage and rehabilitate the environment in respect of rehabilitation).

A financial provision of approximately **R R2 295 796.00** has been budgeted for the prospecting activities. In addition, **R38 081** will be made available by Favoured by Grace (Pty) Ltd for rehabilitation purposes.

Table 14: Calculation of the quantum

CALCULATION OF THE QUANTUM

Applicant: FAVOURED BY GRACE (PTY) LTD.
Evaluator: Valentine Mhlanga

DMRE Ref No.: MP 30/5/1/1/2/17283 PR
Date: August-20

No.	Description	Unit	A Quantity	B Master Rate	C Multiplication factor	D Weighting factor 1	E=A*B*C*D Amount (Rands)
1	Dismantling of processing plant and related structures (including overland conveyors and powerlines)	m3	0	19	1	1	0
2 (A)	Demolition of steel buildings and structures	m2	0	271	1	1	0
2(B)	Demolition of reinforced concrete buildings and structures	m2	0	400	1	1	0
3	Rehabilitation of access roads	m2	2,488.25	49	0.01	1	1219.2425
4 (A)	Demolition and rehabilitation of electrified railway lines	m	0	471	1	1	0
4 (A)	Demolition and rehabilitation of non-electrified railway lines	m	0	257	1	1	0
5	Demolition of housing and/or administration facilities	m2	0	542	1	1	0
6	Opencast rehabilitation including final voids and ramps	ha	0	284292	1	1	0
7	Sealing of shafts adits and inclines	m3	0	146	1	1	0
8 (A)	Rehabilitation of overburden and spoils	ha	0	189528	1	1	0
8 (B)	Rehabilitation of processing waste deposits and evaporation ponds (non-polluting potential)	ha	0	236054	1	1	0
8 (C)	Rehabilitation of processing waste deposits and evaporation ponds (polluting potential)	ha	0	685612	1	1	0
9	Rehabilitation of subsided areas	ha	0	158701	1	1	0
10	General surface rehabilitation	ha	0.9	150138	0.2	1	27024.84
11	River diversions	ha	0	150138	1	1	0
12	Fencing	m	0	171	1	1	0
13	Water management	ha	0	57087	1	1	0
14	2 to 3 years of maintenance and aftercare	ha	0	19980	1	1	0
15 (A)	Specialist study	Sum	0			1	0
15 (B)	Specialist study	Sum				1	0
					Sub Total 1		28244.0825
1	Preliminary and General		3389.2899		weighting factor 2 1		3389.2899
2	Contingencies				2824.40825		2824.40825
					Subtotal 2		34457.78
	2-Aug-22				VAT (15%)		3623.34
					Grand Total		**38081**

20.1. Explain how the aforesaid amount was derived

This information has been provided in the Prospecting Work Programme that was submitted to the DMRE. The drilling contractor will be responsible for rehabilitating the drill pad once the drilling activities have been completed at each exploration hole. The financial guarantee was calculated using the DMRE official financial quantum calculator.

20.2. Confirm that this amount can be provided for from operating expenditure

(*Confirm that the amount, is anticipated to be an operating cost and is provided for as such in the Mining work programme, Financial and Technical Competence Report or Prospecting Work Programme as the case may be)*.

Favoured by Grace (Pty) Ltd herewith confirms both its capacity and willingness to make the financial provision required should the prospecting right be granted. Work will be approved on a phase-by-phase basis, dependent on the results obtained in the previous phase i.e., although prospecting work may be provided for financially in the budget for a specific year, it will only take place if justified. The amount is also reflected in the Prospecting Work Programme submitted to the DMRE.

Cost estimate for the proposed prospecting

ACIVITY	YEAR 1 Expenditure (R`)	YEAR 2 Expenditure (R`)	YEAR 3 Expenditure (R`)	YEAR 4 Expenditure (R`)	YEAR 5 Expenditure (R`)
Phase 1 (Months 0 to 12)					
Literature surveys	R 2 500.00	R1 500.00			
Desk top studies	R 10 000.00	R 5 000.00			
Geophysical or geotechnical work	R 10 000.00	R 4 000.00			
Research and target identification		R 5 000.00			
Phase 2 (Months 13 to 24)					
Invasive work, (Drilling 05 boreholes a depth of 50m)		R48 024 9.00	R48 024 9.00	R48 024 9.00	R48 024 9.00
Sampling work		R 25 000.00	R 15 000.00	R 9 000.00	R 5 000.00

Laboratory work		R 22 800.00	R 11 200.00	R 8 800.00	R 4 800.00
Analytical and modelling work			R 40 000.00	R 20 000.00	R 7 000.00
Infill work			R 25 000.00	R 15 000.00	
Bulk sampling and testing to be carried out					
Phase3 (Months 25 to 60)					
EIA and EMP for mining right application				R 40 000.00	R 20 000.00
Pre-feasibility studies				R 25 000.00	R 10 000.00
Investment decision making application for mining rights				R 22 800.00	R 10 400.00
Annual Total	**R 22,500.00**	**R 543 549.00**	**R 571 449.00**	**R620 849.00**	**R 537 449.00**
				Total Budget	**R2 295 796.00**

21. Specific information required by the competent authority

No additional information other than the appendices of this report has been included.

21.1. Compliance with the provisions of sections 24(4)(a) and (b) read with section 24 (3) (a) and (7) of the National

Environmental Management Act (Act 107 of 1998). the EIA report must include the: -

1. **Impact on the socio-economic conditions of any directly affected person**

(Provide the results of Investigation, assessment, and evaluation of the impact of the mining, bulk sampling, or alluvial diamond prospecting on any directly affected person including the landowner, lawful occupier, or, where applicable, potential beneficiaries of any land restitution claim, attach the investigation report as an Appendix).

The potential impacts on the socio-economic conditions have the potential to include:

- Safety and security risks to landowners and lawful occupiers

The potential exists for a group of unfamiliar workers to enter the project area during the prospecting activities. This impact could potentially affect the local communities, however, the impact will be minimal as people on site will be limited to the Applicant, contractor, and geologists for the topographical and geophysical surveys.

- ❖ Interference with existing land uses

Access to the application area for the topographical and geophysical survey will be required which may interrupt the existing land uses, such as livestock grazing, residential developments, and game activities. However, this impact will be minimal as no heavy equipment will be brought on site and it is of short duration.

The consultation process will allow directly affected parties to raise their concerns. Further to this, it must be noted that I&AP's, including directly affected parties such as landowners, have the opportunity to review and comment on this report. The results of the public consultation have been included in the final report submitted to the department for adjudication.

2. **Impact on any national estate referred to in section 3(2) of the National Heritage Resources Act**

From these previous research records conducted in the area; the specialist concluded that the general region is significant from a heritage perspective. Heritage sites are likely to include graveyards, Iron Age/Farmer, and Historical remains. Since heritage sites, e.g., graves, are not always clearly identifiable as it might consist of stone cairns, it is advised that a qualified archaeologist inspect the proposed prospecting sites prior to drilling to establish whether the sites might be sensitive from a heritage perspective.

The following recommendations were made in terms of the National Heritage Resources Act (Act No. 25 of 1999) to avoid the destruction of heritage remains in areas demarcated for prospecting:

- Prior to any development, construction or prospecting, a qualified archaeologist should conduct a site inspection on the areas demarcated for

geotechnical drilling/prospecting. Proposed access roads to the drill sites should also be surveyed to avoid the destruction of heritage material;

- Should the prospecting outcome result in further development or construction and mining, a full Phase 1 Archaeological Impact Assessment must be conducted on the affected area if triggered;
- Because archaeological artefacts generally occur below surface, the possibility exists that culturally significant material may be exposed during the development and construction phases, in which case all activities must be suspended pending further archaeological investigations by a qualified archaeologist. Also, should skeletal remains be exposed during development and construction phases, all activities must be suspended, and the relevant heritage resources authority contacted (see National Heritage Resources Act (Act No. 25 of 1999) Section 36 (6)).

22. Other matters required in terms of sections 24(4)(A) and (B) of the act

(The EAP managing the application must provide the competent authority with detailed, written proof of an investigation as required by section 24(4)(b)(i) of the Act and motivation if no reasonable or feasible alternatives, as contemplated in sub regulation 22(2)(h), exist. The EAP must attach such motivation as Appendix).

The EAP included all aspects as required by the EIA regulations, 2014 for the EIA and EMPR as described in the Executive Summary of this report. Please refer to Part A.

PART B
ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT

23. Introduction

23.1. Details of the EAP

(Confirm that the requirement for the provision of the details and expertise of the EAP are already included in PART A, section 1(a) herein as required).

Herewith, it is confirmed that the requirement for the provision of the details and expertise of the EAP are already included in PART A, Section 1(a) of this report.

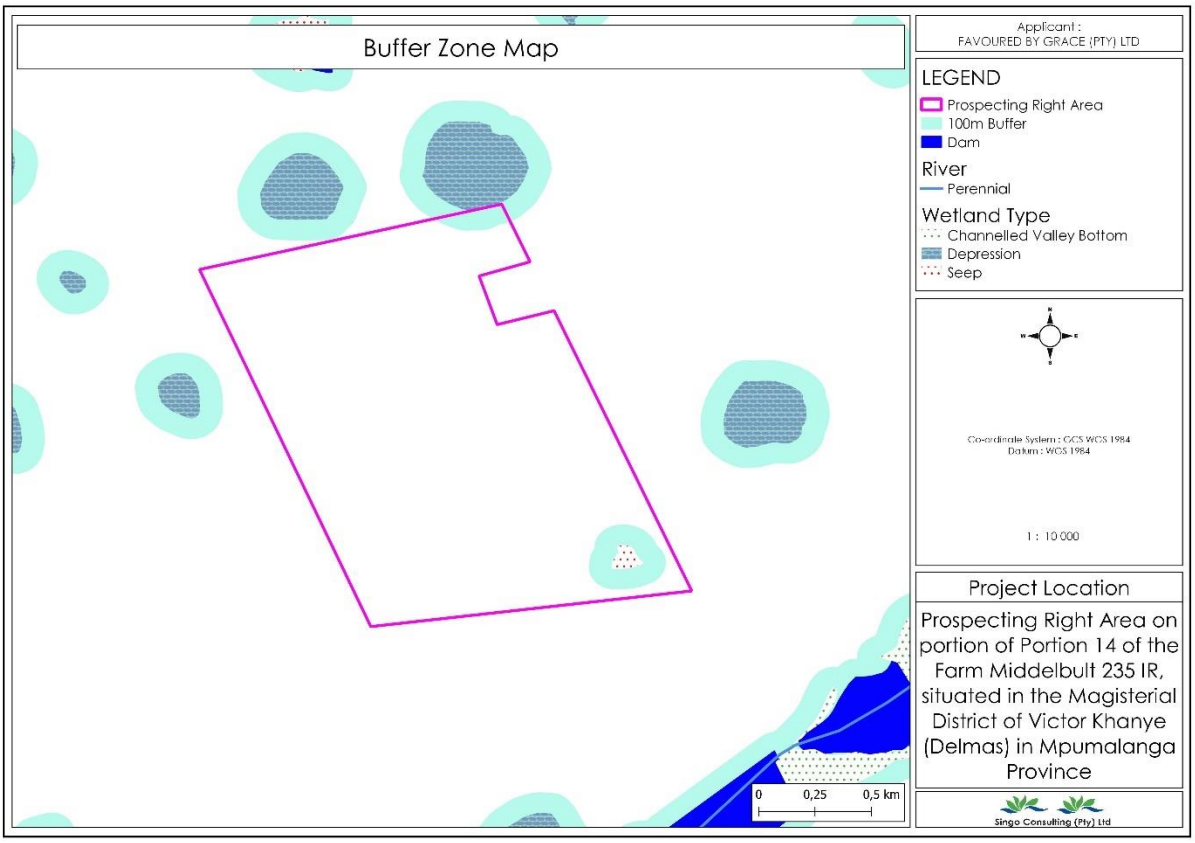
23.2. Description of the Aspects of the Activity

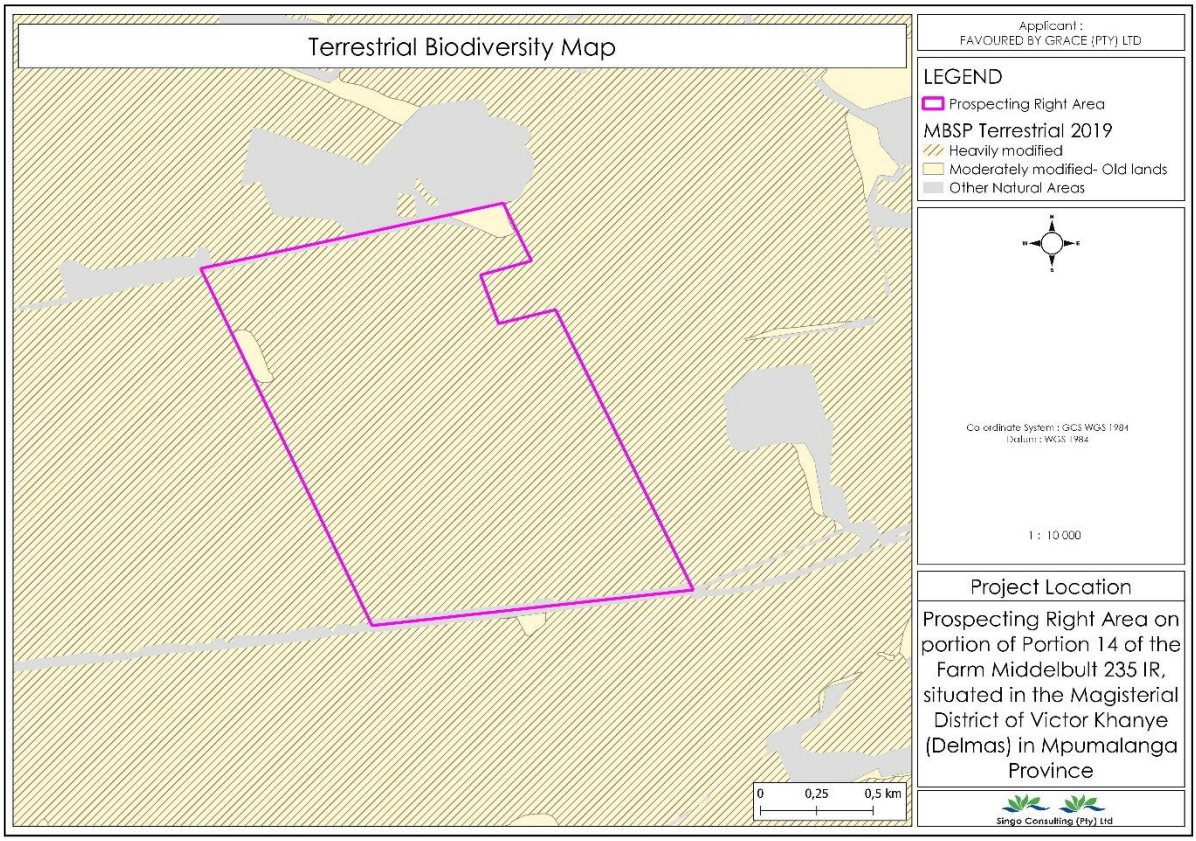
(Confirm that the requirement to describe the aspects of the activity that are covered by the draft environmental management programme is already included in PART A, section (1) (h) herein as required).

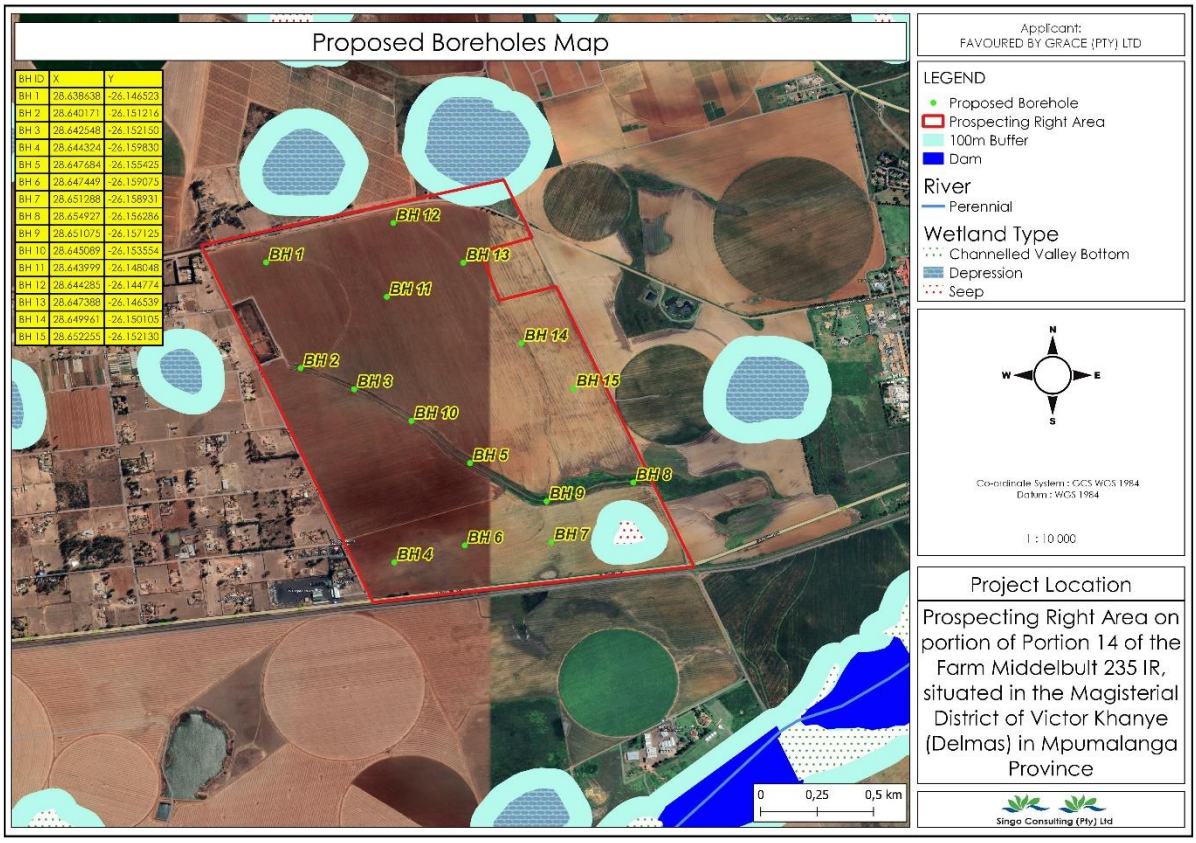
Herewith, it is confirmed that the requirement to describe the aspects of the activity that are covered by the draft environmental management programme is already included in PART A, section (2) herein as required.

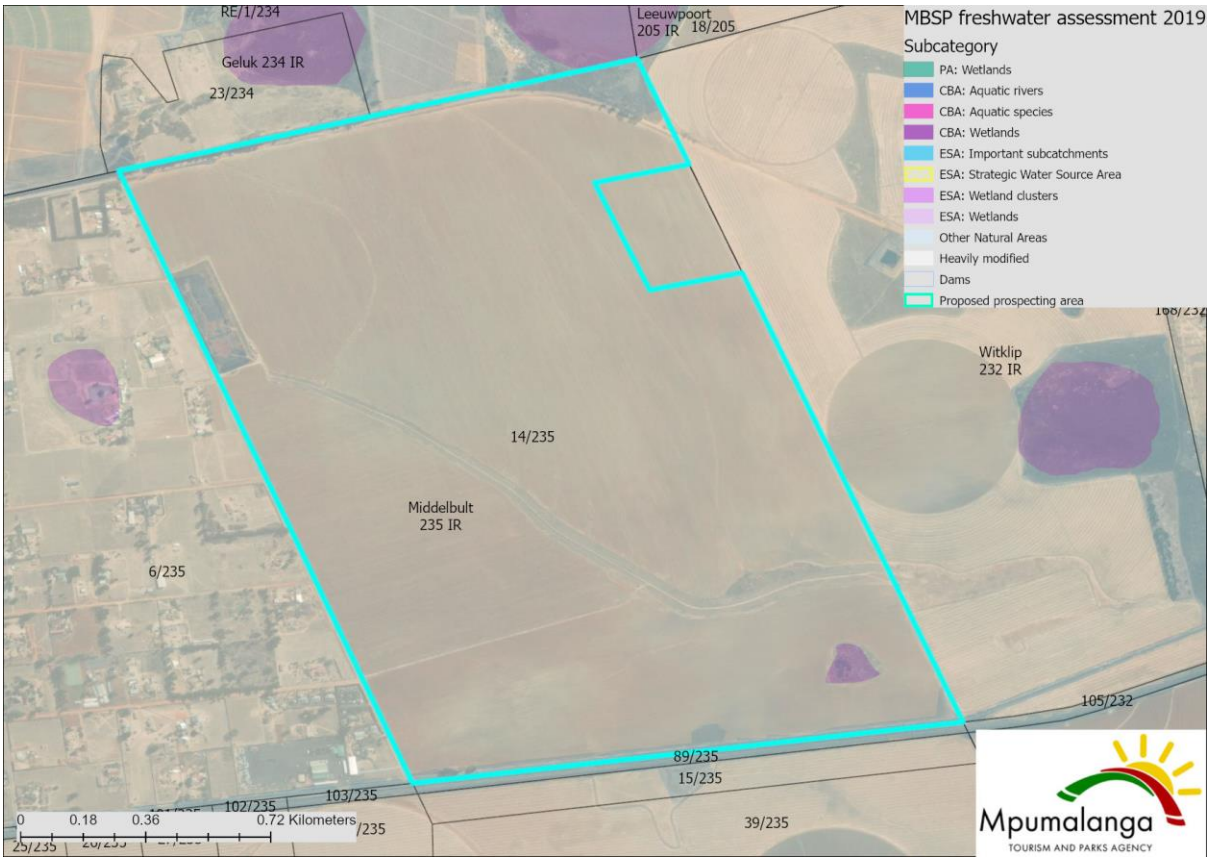
23.3. Composite Map

(Provide a map (Attached as an Appendix) at an appropriate scale which superimposes the proposed activity, its associated structures, and infrastructure on the environmental sensitivities of the preferred site, indicating any areas that should be avoided, including buffers).


Buffer Zone Map
Applicant :
FAVOURED BY GRACE (PTY) LTD
LEGEND
Prospecting Right Area
100m Buffer
Dam
River
Perennial
Wetland Type
Channelled Valley Bottom
Depression
Seep
Co-ordinate System : GCS WGS 1984
Datum : WGS 1984
1 : 10 000
Project Location
Prospecting Right Area on portion of Portion 14 of the Farm Middelbult 235 IR, situated in the Magisterial District of Victor Khanye (Delmas) in Mpumalanga Province
0 0,25 0,5 km
Singo Consulting (Pty) Ltd


Terrestrial Biodiversity Map
Applicant :
FAVOURED BY GRACE (PTY) LTD
LEGEND
Prospecting Right Area
MBSP Terrestrial 2019
Heavily modified
Moderately modified- Old lands
Other Natural Areas
Co ordinate System : GCS WGS 1984
Datum : WGS 1984
1 : 10 000
Project Location
Prospecting Right Area on portion of Portion 14 of the Farm Middelbult 235 IR, situated in the Magisterial District of Victor Khanye (Delmas) in Mpumalanga Province
0 0,25 0,5 km
Singo Consulting (Pty) Ltd


Proposed Boreholes Map
BH ID X Y
BH 1 28.638638 -26.146523
BH 2 28.640171 -26.151216
BH 3 28.642548 -26.152150
BH 4 28.644324 -26.159830
BH 5 28.647684 -26.155425
BH 6 28.647449 -26.159075
BH 7 28.651288 -26.158931
BH 8 28.654927 -26.156286
BH 9 28.651075 -26.157125
BH 10 28.645089 -26.153554
BH 11 28.643999 -26.148048
BH 12 28.644285 -26.144774
BH 13 28.647388 -26.146539
BH 14 28.649961 -26.150105
BH 15 28.652255 -26.152130
BH 1
BH 2
BH 3
BH 4
BH 5
BH 6
BH 7
BH 8
BH 9
BH 10
BH 11
BH 12
BH 13
BH 14
BH 15
0 0,25 0,5 km
Applicant:
FAVOURED BY GRACE (PTY) LTD
LEGEND
Proposed Borehole
Prospecting Right Area
100m Buffer
Dam
River
Perennial
Wetland Type
Channelled Valley Bottom
Depression
Seep
N
W
E
S
Co-ordinate System : GCS WGS 1984
Datum : WGS 1984
1 : 10 000
Project Location
Prospecting Right Area on portion of Portion 14 of the Farm Middelbult 235 IR, situated in the Magisterial District of Victor Khanye (Delmas) in Mpumalanga Province
Singo Consulting (Pty) Ltd


MBSP freshwater assessment 2019
Subcategory
PA: Wetlands
CBA: Aquatic rivers
CBA: Aquatic species
CBA: Wetlands
ESA: Important subcatchments
ESA: Strategic Water Source Area
ESA: Wetland clusters
ESA: Wetlands
Other Natural Areas
Heavily modified
Dams
Proposed prospecting area
RE/1/234
Geluk 234 IR
23/234
Leeuwpoort
205 IR
18/205
Witklip
232 IR
14/235
Middelbult
235 IR
6/235
105/232
89/235
15/235
39/235
103/235
102/235
0 0.18 0.36 0.72 Kilometers
Mpumalanga
TOURISM AND PARKS AGENCY

24. Description of Impact management objectives including management statements

24.1. Determination of closure objectives

(Ensure that the closure objectives are informed by the type of environment described).

The prospecting activities are dependent on the preceding phase (non-invasive). Prospecting is conducted in phases, where the activities and location of drilling and trenching to sample soil are dependent on the previous phase. Therefore, the specific locations and extent of soil sampling and diamond core drilling cannot be predetermined.

The closure objectives include:

- Ensure that there are no safety risks associated with the drill boreholes through drill hole capping and backfilling;
- Rehabilitate any pollution that occurred through hazardous spills or waste materials and remove the source of the pollution;
- Establish an area that is not susceptible to soil erosion;
- Re-vegetate disturbed areas with endemic plant species that occur naturally within the area.

24.2. Volumes and rate of water use required for the operation

Limited water will be consumed by the surface dust suppression activities (water mist added for dust suppression when required).

24.3. Has a water use license been applied for?

No. The prospecting right activities that will take place includes Drilling, Logging, Sampling and Mapping. It should be noted that these activities do not include any mining activities nor bulk sampling, and No PCD, Trenches and Berms will be constructed. The drilling activity will only take up about 0.9 ha per planned borehole, and all the planned exploration boreholes will be outside the 500m DWS regulated radius from the watercourses. No water will be abstracted from the drilled exploration boreholes.

From the above listed activities, we won't trigger any of the section 21 water uses of the National Water Act, 1998 during the prospecting period. Therefore, we will not be applying for a water use license.

24.4. Impacts to be mitigated in their respective phases

Measures to rehabilitate the environment affected by the undertaking of any listed activity

Table 15: Impacts to be mitigated

Table 16: Impact mitigation and rehabilitation

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Implementation period
E.g. for prospecting: Drill site, site camp, ablution facility, accommodation, equipment storage, sample storage, site office, access route, etc. E.g. for mining: Excavations, blasting, stockpiles, discard dumps/dams, loading, hauling, transport, water supply dams, boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc.	In which impact is anticipated, e.g. construction, commissioning, operational, decommissioning, closure and post-closure.	Volumes, tonnages and ha/m^2	Describe how each of the recommendations herein will remedy the cause of pollution or degradation and migration of pollutants.	A description of how each of the recommendations herein will comply with any prescribed environmental management standards or practices that have been identified by Competent Authorities.	Describe the period when the measures in the environmental management program must be implemented. Measures must be implemented when required. Rehabilitation must take place at the earliest opportunity. With regard to rehabilitation, state whether it will take place upon cessation of the individual activity or cessation of mining, bulk sampling or alluvial diamond prospecting.
Site establishment activities Vegetation clearance Topsoil stripping and stockpiling Drill pad compaction Placement of temporary portable toilets and resting place Vehicle movements Waste management	Construction/setup and operational phase	20m^2 diamond drill holes	Any buried artifacts that may be uncovered during site activities will require such activities to stop and a qualified archaeologist will be commissioned to assess their significance and determine appropriate mitigation measures.	Heritage Act	Before and during drilling activities
	Construction/setup and	20m^2 diamond drill holes	Control noise generation by	SANS 10103 guideline	Before and during drilling activities

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Implementation period
	operational phase		maintaining equipment. Limited to daylight hours on Mondays to Saturdays and no activities on Sundays and public holidays. Maintain a buffer of 500m between drill sites and dwellings. The resting place shall be located outside of the 82dB Zone of the drill site.		
Exploration drilling: Drilling Drill maintenance and re-fueling Core sample collection and storage Vehicle movements Waste generation and management	Construction/setup and operational phase	20m^2 diamond drill holes	The drilling rig and other visually prominent items on the site will be located in consultation with the landowner; Make use of existing vegetation as far as possible to screen the prospecting operations from view; and If necessary, the operations can be screened from view by erecting a shade cloth barrier	N/A	Before and during drilling activities
	Construction/setup and operational phase	20m^2 diamond drill holes	Control dust emission by ensuring drill rig employs dust suppression system. Low vehicle speeds will be enforced on unpaved	GN R. 827 (NEMAQA)	Before and during drilling activities

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Implementation period
			surfaces. Maintain a buffer of 500mbetween drill sites and dwellings		
	Construction/setup and operational phase	20m^2 diamond drill holes	The soil disturbance and clearance of vegetation at drill pad areas will be limited to the absolute minimum required and will not be dozed or scraped with vegetation roots left intact for later re growth; and Disturbed areas will be vegetated with locally indigenous species as soon as possible.	N/A	Before and during drilling activities

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Implementation period
	Construction/setup and operational phase	0.09 Ha per drill site	All operations will be carried out under the guidance of a strong, experienced manager with proven skills in public consultation and conflict resolution, including environmental coordinator where applicable; All prospecting personnel will be made aware of the local conditions and sensitivities in the prospecting area and the fact that some of the local residents may not welcome the prospecting activities in the area.	NEMA	Before and during drilling activities

24.5. Impact Management Outcomes

(A description of impact management outcomes, identifying the standard of impact management required for the aspects contemplated;

Table 17: Measures to rehabilitate the environment affected by the undertaking of any listed activity, impact management outcomes, and impact management actions for

Activities	Potential impact	Aspects affected	Phase	Mitigation type	Standard to be achieved
E.g. for prospecting: Drill site, site camp, ablution facility, accommodation, equipment storage, sample storage, site office, access route, etc. **E.g.,** for mining: Excavations, blasting, stockpiles, discard dumps/dams, loading, hauling, transport, water supply dams, boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc.	Including the potential impacts for cumulative impacts. **E.g.,** dust, noise, drainage surface disturbance, fly rock, surface water contamination, groundwater contamination, air pollution etc.		In which impact is anticipated, **e.g.,** construction, commissioning, operational, decommissioning, closure and post-closure.		
Site establishment activities (-ve) Vegetation clearance Topsoil stripping and stockpiling Drill pad compaction Erection of office, toilets, fuel storage (if not by road tanker), water tanker, core storage Vehicle movements Waste management	Cultural and heritage	Destruction or loss of Cultural and Heritage Resources: no housing cultural/ heritage artefacts have been identified closer to the site.	Construction/ set-up	If concentrations of archaeological heritage material and human remains are uncovered during construction, all work must cease immediately. The find must be reported to a heritage specialist so that systematic and professional investigation/ excavation can be undertaken.	Heritage Act
	Noise	Noise generation	Construction/ set-up	Construction/setup, operational and decommissioning activities will be limited to daylight hours on Mondays to Saturdays and no activities on Sundays and public holidays. Separation of distance of minimum 500m, but preferably 1 000m to be maintained between drill sites and dwellings. Noise abatement equipment, such as mufflers on diesel engines, will be	SANS 10103

Activities	Potential impact	Aspects affected	Phase	Mitigation type	Standard to be achieved
				maintained in good condition. If intrusive noise levels are experienced by any person at any point, the source of the noise will be moved if practical, or it will be placed in an acoustic enclosure, or an acoustic barrier will be erected between the source and the recipient.	
	Visual	Visual intrusion	Construction/ set-up	The drilling rig and other visually prominent items on the site will be located in consultation with the landowner. Make use of existing vegetation as far as possible to screen the prospecting operations from view. If necessary, the operations can be screened from view by erecting a shade cloth barrier.	N/A
	Traffic	Increase in traffic volumes in drilling site vicinity	Construction/ set-up	Traffic signs to be put around the site to notify motorist of the activities. Construction vehicles to make trips on/off site only when necessary. Construction vehicles to adhere to local speed limits as far as possible when driving in around site.	National Traffic Act Regulations
	Dust fall	Dust fall and nuisance from activities	Construction/ set-up	Wet suppression should be applied to ensure that no visible dust is raised by any of the prospecting operations.	GN R. 827 (NEMAQA)

Activities	Potential impact	Aspects affected	Phase	Mitigation type	Standard to be achieved
				Separation of distance of minimum 500m, but preferably 1 000m to be maintained between drill sites and dwelling. Low vehicle speeds will be enforced on unpaved surfaces.	
	Soil and vegetation	The potential impact of the proposed prospecting on the vegetation would occur at proposed drilling sites and the access routes used to get to these sites.	Construction/ set-up	The soil disturbance and clearance of vegetation at drill pad areas will be limited to the absolute minimum required; No clear scraping (dozing) be carried out unless necessary to establish a level drill pad. Rather that surface vegetation is cleared to make way for the drilling rig leaving the roots intact so that vegetation can coppice and regrow. Disturbed areas will be re-vegetated with locally indigenous species as soon as possible.	NEMBA
	Animal life	Animal life will be affected in the immediate vicinity of the drilling rig. It is anticipated that the noise and general activity will keep the animal life away from the site while the prospecting is ongoing.	Construction/ set-up	Environmental awareness training sessions should be part of the workers' induction and site workshops. If any animals are encountered they must not be killed or injured, but should rather be removed or chased away from the site with the assistance of an animal specialist.	NEMBA
	Social	Friction between residents/land owners and construction personnel.	Construction/ set-up	All operations will be carried out under the guidance of a strong, experienced manager with proven skills in public	NEMA

Activities	Potential impact	Aspects affected	Phase	Mitigation type	Standard to be achieved
				consultation and conflict resolution. All prospecting personnel will be made aware of the local conditions and sensitivities in the prospecting area and the fact that some of the residents may not welcome the prospecting activities in the area. There will be a strict requirement to treat residents with respect and courtesy at all times.	
	Job creation	Employment will be created for the clearing of the land and establishing the drilling site.	Construction/ set-up	No mitigation measures required.	NEMA
Exploration drilling (ve) Drilling Drill maintenance and refueling Core sample collection and storage Vehicle movements Waste generation and management	Noise	Noise generation	Operations	Activities will be limited to daylight hours on Mondays to Saturdays and no activities on Sundays and public holidays. Separation of distance of minimum 500m, but preferably 1 000m to be maintained between drill sites and dwellings; Noise abatement equipment, such as mufflers on diesel engines, will be maintained in good condition. If intrusive noise levels are experienced by any person at any point, the source of the noise will be moved if practical, or it will be placed in an acoustic enclosure,	Heritage Act

Activities	Potential impact	Aspects affected	Phase	Mitigation type	Standard to be achieved
				or an acoustic barrier will be erected between the source and the recipient.	
	Visual	Visual intrusion	Operations	The drilling rig and other visually prominent items on the site will be located in consultation with the landowner. Make use of existing vegetation as far as possible to screen the prospecting operations from view. If necessary, the operations can be screened from view by erecting a shade cloth barrier.	SANS 10103
	Traffic	Increase in traffic volumes in the drilling site vicinity	Operations	Traffic signs to be put around the site to notify motorist of the activities. Construction vehicles to make trips on/off site only when necessary. Construction vehicles to adhere to local speed limits as far as possible when driving in around site.	N/A
	Dust fall	Dust fall and nuisance from activities	Operations	Wet suppression will be applied to ensure that no visible dust is raised by any of the prospecting operations. Separation of distance of minimum 500m, but preferably 1000m to be maintained between drill sites and dwellings. Low vehicle speeds will be enforced on unpaved surfaces.	National Traffic Act regulations
	Soil and vegetation	Soil and vegetation disturbance from drill pad preparation	Operations	The soil disturbance and clearance of vegetation at drill pad areas will be limited to the absolute minimum	GN R. 827 (NEMAQA)

Activities	Potential impact	Aspects affected	Phase	Mitigation type	Standard to be achieved
				required. No clear scraping (dozing) be carried out unless necessary to establish a level drill pad. Rather that surface vegetation be cleared to make way for the drilling rig leaving the roots intact so that vegetation can coppice and regrow. Disturbed areas will be re vegetated with locally indigenous species as soon as possible.	
	Animal life	Animal life will be affected in the immediate vicinity of the drilling rig. It is anticipated that the noise and general activity will keep the animal life away from the site while the prospecting is ongoing.	Operations	Measures implemented during site establishment should apply in this phase as well.	NEMBA
	Social	Friction between residents/land owners and construction personnel	Operations	All operations will be carried out under the guidance of a strong, experienced manager with proven skills in public consultation and conflict resolution. All prospecting personnel will be made aware of the local conditions and sensitivities in the prospecting area and the fact that some of the residents may not welcome the prospecting activities	NEMBA

Activities	Potential impact	Aspects affected	Phase	Mitigation type	Standard to be achieved
				in the area. There will be a strict requirement to treat residents with respect and courtesy at all times.	
	Job creation	Employment will be created for the clearing of the land and establishing the drilling site.	Operations	No mitigation measures required.	NEMA

2.1 Impact Management Actions

A description of impact management actions, identifying the manner in which the impact management objectives and outcomes contemplated in paragraphs (c) and (d) will be achieved.

Table 18: Impact management actions

Activities	Potential impact	Mitigation type	Implementation period	Compliance with standards
Whether listed or not. E.g. excavations, blasting, stockpiles, discard dumps/dams, loading, hauling and transport, water supply dams/boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc.	E.g. dust, noise, drainage surface disturbance, fly rock, surface water contamination, ground water contamination, air pollution, etc.	Modify, remedy, control or stop through, e.g. noise control measures, storm water control, dust control, rehabilitation, design measures, blasting controls, avoidance, relocation, alternative activity, etc. E.g., modify through alternative method, control through noise control, control through management and monitoring, and remedy through rehabilitation.	State when the environmental management programme measures must be implemented. Measures must be implemented when required. This must take place as soon as possible. Regarding rehabilitation, state upon cessation of the individual activity or mining, bulk sampling or alluvial diamond prospecting.	A description of how each of the recommendations in 2.11.6 read with 2.12 and 2.15.2 herein will comply with any prescribed environmental management standards or practices that have been identified by Competent Authorities.
Site establishment activities Vegetation clearance Topsoil stripping and stockpiling Drill pad compaction Erection of office, toilets, fuel storage (if not by road tanker), water tanker, core storage Vehicle movements Waste management	Cultural and heritage	Undertake heritage survey prior to site activities to identify cultural/heritage features and cordon these off with Chevron tape. Avoid cultural/heritage impacts by maintaining 50m buffer from any identified heritage feature. Any buried artifacts that may be uncovered during site activities will require such activities to stop and a qualified archaeologist will be commissioned to assess their significance and determine appropriate mitigation measures.	Before and after drilling activities.	Heritage Act

Activities	Potential impact	Mitigation type	Implementation period	Compliance with standards
Exploration drilling Drilling Drill maintenance and refueling Core sample collection and storage Vehicle movements Waste generation and management	Noise	Control noise generation by maintaining equipment and limiting operation hours to daylight hours from Mondays to Saturdays (no activities on Sundays and public holidays). Maintain a buffer of 500m-1 000m between drill sites and dwellings. If intrusive noise levels are experienced by any person at any point, the source will be moved if practical, or placed in an acoustic enclosure, or an acoustic barrier will be erected between the source and the recipient.	Before and after drilling activities.	SANS 10103
	Visual	The drilling rig and other visually prominent items on site will be placed in consultation with the landowner. Existing vegetation will be used as far as possible to screen the prospecting operations from view. Operations can be hidden from view by erecting a shade cloth barrier.	Before and after drilling activities.	N/A
	Dust fall	Control dust emission by ensuring drill rig employs dust suppression system. Low vehicle speeds will be enforced on unpaved surfaces.	Before and after drilling activities.	GN R. 827 (NEMAQA)
	Soil and vegetation	Soil disturbance and vegetation clearance at drill pads will be kept to the minimum required and not be dozed/scraped; vegetation roots will be left intact for regrowth. Disturbed areas will be re-vegetated with indigenous species as soon as possible.	Before and during drilling activities; disturbed areas to re-vegetated as soon as possible.	N/A
	Social	Operations will be carried out under the guidance of an experienced manager with public consultation and conflict resolution skills. All prospecting personnel will be made aware of conditions and sensitivities in the prospecting area and of the fact that some residents may not welcome the prospecting activities. Residents will be treated with respect and courtesy at all times.	Before and after drilling activities.	NEMA

25. Financial Provision

25.1. Determination of the amount of Financial Provision

25.1.1. Describe the closure objectives and the extent to which they have been aligned to the baseline environment described under the Regulation

The closure objectives include:

- Ensure that there are no safety risks associated with the drill boreholes through drill hole capping and backfilling;
- Rehabilitate any pollution that occurred through hazardous spills or waste materials and remove the source of the pollution;
- Establish an area that is not susceptible to soil erosion;
- Re-vegetate disturbed areas with endemic plant species that occur naturally within the area.

25.1.2. Confirm specifically that the environmental objectives in relation to closure have been consulted with landowner and interested and affected parties

Minimize the area to be disturbed and to ensure that the areas disturbed during the prospecting activities are rehabilitated and stable, as per the commitments made in the EMP. Sustain the pre-prospecting land use and return the site to its near natural state as far as possible.

This Basic Assessment Report and Environmental Management Programme is subjected to a public consultation period, whereby I&APs are given 30 days to comment.

The Public Participation Process (PPP) is a requirement of several pieces of South African Legislation and aims to ensure that all relevant Interested and Affected Parties (I&AP's) are consulted, involved and their opinions are considered, and a record included in the reports submitted to Authorities. The process ensures that all stakeholders are provided this opportunity as part of a transparent process which allows for a robust and comprehensive environmental study. The PPP for the as part of the prospecting right application needs to be managed sensitively and according to best practices in order to ensure and promote:

- Compliance with national legislation;

- ❖ Establish and manage relationships with key stakeholder groups; and
- ❖ Encourage involvement and participation in the environmental study and authorisation/ approval process.

As such, the purpose of the PPP and stakeholder engagement process is to:

- o Introduce the proposed project;
- o Explain the environmental authorisations required;
- o Explain the environmental studies already completed and yet to be undertaken (where applicable);
- o Determine and record issues, concerns, suggestions, and objections to the project;
- o Provide opportunity for input and gathering of local knowledge;
- o Establish and formalize lines of communication between the I&AP's and the project team;
- o Identify all significant issues for the project; and
- o Identify possible mitigation measures or environmental management plans to minimise and/or prevent negative environmental impacts and maximize and/or promote positive environmental impacts associated with the project.

Landowners and interested and affected parties have been consulted and provided an opportunity to comment on this Basic Assessment Report, EMPR including all decommissioning, closure, and rehabilitation plans.

25.2. Provide a rehabilitation plan that describes and shows the scale and aerial extent of the main mining activities, including the anticipated mining area at the time of closure

The prospecting activities are dependent on the preceding phase (non-invasive). Prospecting is conducted in phases, where the activities and location of drilling and trenching to sample soil are dependent on the previous phase. Therefore, the specific locations and extent of soil sampling and diamond core drilling cannot be predetermined. Mapping of prospecting activities can also not be conducted.

Due to the small extent and short-term period of the prospecting activities and as shown in the Environmental Impact Assessment, the impacts will be of a low or very low significance. Rehabilitation will be conducted and will include borehole capping and re-vegetation.

25.3. Explain why it can be confirmed that the rehabilitation plan is compatible with the closure objectives

Due to the small extent and short-term period of the prospecting activities and as shown in the Environmental Impact Assessment, the impacts will be of a low or very low significance. Rehabilitation will be conducted and will include borehole capping and re-vegetation. Detailed mitigation measures are provided in the EMPR to ensure the closure objectives are met.

25.4. Calculate and state the quantum of the financial provision required to manage and rehabilitate the environment in accordance with the applicable guideline

The closure cost assessment will be conducted, if required. The report will be submitted to the Department of Mineral Resources together with the Final Basic Impact Assessment report, if required.

25.5. Confirm that the financial provision will be provided as determined.

It is confirmed that the amount for financial provision is anticipated to be an operating cost and is provided for as such in the Prospecting Work Programme. Favoured by Grace (Pty) Ltd herewith confirms both its capacity and willingness to make the financial provision required should the prospecting right be granted.

26. Mechanisms for monitoring compliance with and performance assessment against the environmental management programme and reporting thereon, including

h) Monitoring of Impact Management Actions

i) Monitoring and reporting frequency

j) Responsible persons

k) Time period for implementing impact management actions

l) Mechanism for monitoring compliance

Table 19: Mechanisms for monitoring compliance

Source activity	Impacts requiring monitoring programmes	Functional monitoring requirements	Roles and responsibilities for monitoring programme execution	Monitoring and reporting frequency and periods for impact management actions implementation
All prospecting activities	N/A	Ensure that the prospecting programme is being implemented in line with the approved PWP.	Favoured by Grace (Pty) Ltd Geologist	Submit an annual prospecting progress report to DMR
	All commitments contained in the BA Report and	Ensure commitments made within the approved BAR and EMPr are being adhered to.	Internal environmental control officer and	Undertake and submit an environmental

Source activity	Impacts requiring monitoring programmes	Functional monitoring requirements	Roles and responsibilities for monitoring programme execution	Monitoring and reporting frequency and periods for impact management actions implementation
	accompanying EMPr		independent EAP.	performance audit every two years to DMR.
Drilling activities	Noise Dust fall Visual Soil and vegetation Social Housekeeping and maintenance Waste management Rehabilitation	Weekly inspections will cover the following: Implementation of effective waste management Establish and implement a stakeholder compliant register on site and ensure that all complaints are responded to promptly. Ensure that an oil spill kit is readily available. Ensure that all chemicals and hydrocarbons are stored within bundwalls Ensure	Appointed drilling contractor.	Weekly inspection and reporting.

Source activity	Impacts requiring monitoring programmes	Functional monitoring requirements	Roles and responsibilities for monitoring programme execution	Monitoring and reporting frequency and periods for impact management actions implementation
		that the fire brake is maintained. Rehabilitation of drill pads. Records of water intersections on borehole logs. Control and minimize the development of new access tracks. Appropriate storage and handling of topsoil.		
Post-drilling	Groundwater Re-vegetation Stability Soil erosion Alien invasive species	Monitor the external boreholes within 500m from drill post drilling (if any). The drill site must be monitored 6 monthly until closure certificate is obtained.	Environmental Coordinator	Monitoring Report

27. Indicate the frequency of the submission of the performance assessment/ environmental audit report.

A Performance Assessment Review of the EMPR should be conducted annually and the environmental audit report will be submitted annually.

28. Environmental Awareness Plan

28.1. Manner in which the applicant intends to inform his or her employees of any the environmental risk which may result from their work

The environmental awareness plan will include the following:

- Induction of all staff and workers;
- Monthly 'toolbox' talks (awareness talks);
- Risk assessments for specific tasks with supervisors and staff involved in the task on a daily basis, or as often as the task is taking place.

The following principles and training will apply to the Environmental Awareness Plan (safety, health and environmental (SHE) training and the Environmental Management System (EMS) training):

- All personnel, including contactors, will as a minimum undergo general, SHE induction and awareness training;
- The Safety, Health, Environmental and Quality (SHEQ) Manager will identify the SHE training requirements for all personnel and contractors. The training requirements will be recorded in a training needs matrix indicating training that must be undertaken by identified personnel and contractors. The training matrix will be administered by the Training Department; and Development of the Training Programme, which will include:

- Job specific training – training for personnel performing tasks which could cause potentially significant environmental impacts;
- Assessment of extent to which personnel are equipped to manage environmental impacts;
- Basic environmental training;

- ❖ EMS training;
- ❖ Comprehensive training – on emergency response, spill management, etc.
- ❖ Specialized skills;
- ❖ Training verification and record keeping; and
- ❖ Periodic re-assessment of training needs, with specific reference to new developments, newly identified issues and impacts and associated mitigation measures.

General Awareness Training

- The HR Manager, together with the SHEQ Manager, will be responsible for the development of, or facilitating the development of, the required general SHE induction and awareness training. A general environmental awareness training module will be developed and integrated into the general induction programme. The general awareness training must include the Environmental Policy, a description of the environmental impacts and aspects and the importance of conformance to requirements, general responsibilities of personnel and contractors regarding the environmental requirements and a review of the emergency procedures and corrective actions; and
- A Training Practitioner will conduct the general awareness training. The training presenter will keep a record of the details of all persons attending general awareness training. Such attendance registers shall indicate the names of attendants and their organisations, the date and the type of training received.

Specific Environmental Training

- Specific environmental training will be in line with the requirements identified in the training matrix; and
- Personnel whose work tasks can impact on the environment will be made aware of the requirements of appropriate procedures/work instructions. The SHEQ Manager will communicate training requirements to responsible supervisors to ensure that personnel and contractors are trained accordingly.

Training Evaluation and Re-training

- Effectiveness of the environmental training will be reflected by the degree of conformance to EMPR requirements, the result of internal audits and the general environmental performance achieved.
- Incidents and non-conformances will be assessed through the Internal Incident Investigation and Reporting System, to determine the root cause, including the possible lack of awareness/training;
- Should it be evident that re-training is required, the SHEQ Manager will inform the managers of the need and take the appropriate actions;
- General awareness training of all personnel shall be repeated every year; and
- The re-induction shall take into consideration changes made in the EMPR, changes in legislation, current levels of environmental performance and areas of improvement.

Emergency Procedures

- Emergency procedures, as relevant to this project, shall be implemented;
- The SHEQ Manager shall define emergency reporting procedures for the project;
- All personnel shall be made aware of emergency reporting procedures and their responsibilities;
- Any spills will be cleaned up immediately in accordance with relevant legislation; and
- Telephone numbers of emergency services, including the local firefighting service, shall be conspicuously displayed.

28.2. Manner in which risks will be dealt with to avoid pollution or the degradation of the environment

The broad measures to control or remedy any causes of pollution or environmental degradation because of the proposed prospecting activities taking place are provided below:

- ❖ Contain potential pollutants and contaminants (where possible) at source;

- ❖ Handling of potential pollutants and contaminants (where possible) must be conducted in bunded areas and on impermeable substrates;
- ❖ Ensure the timeous clean-up of any spills;
- ❖ Implement a waste management system for all waste stream present on site;
- ❖ Investigate any I&AP's claims of pollution or contamination as a result of mining activities; and
- ❖ Implement the impact management objectives, outcomes and actions, as described in Section above.

It is of critical importance that the broad measures to control or remedy any causes of pollution or environmental degradation are applied during onsite prospecting activities.

29. Specific information required by the Competent Authority

(Among others, confirm that the financial provision will be reviewed annually)

No specific information has been required by the Competent Authority now.

30. UNDERTAKING

The EAP herewith confirms;

a) the correctness of the information provided in the reports ☒

b) the inclusion of comments and inputs from stakeholders and I&APs; ☒

c) the inclusion of inputs and recommendations from the specialist reports where relevant; ☒; and

d) that the information provided by the EAP to interested and affected parties and any responses by the EAP to comments or inputs made by interested and affected parties are correctly reflected herein. ☒

Signature of the environmental assessment practitioner:

Singo Consulting (Pty) Ltd

Name of company:

16/08/2022

Date:

-END-

Appendix 1: DMRE letters

mineral resources
& energy
Department:
Minerals Resources and Energy
REPUBLIC OF SOUTH AFRICA

Private Bag X7279, Witbank, 1035, Tel: 013 653 0500, Fax 013 690 3288
Saveways Centre, First Floor, Mandela Drive, Witbank, 1035, Mpumalanga Province
Directorate: Mineral Regulation: Mpumalanga Region
Subdirectorate: Mineral Laws **Enquiries**: Mugagadeli NL
Ref: MP 305/1/1/2/17283PR

EMAIL kenneth@singoconsulting.co.za

The Directors
Favoured by Grace (Pty) Ltd
Private Bag X7214
BENFLEUR
1035

Dear Sir/Madam

ACCEPTANCE OF AN APPLICATION FOR PROSPECTING RIGHT IN TERMS OF SECTION 16(4) OF THE MINERAL AND PETROLEUM RESOURCES DEVELOPMENT ACT, 2002 (ACT 28 OF 2002) [HEREIN AFTER REFERRED TO AS THE ACT] AS AMENDED BY SECTION 12(d) OF THE MINERALS AND PETROLEUM RESOURCES DEVELOPMENT AMENDMENT ACT, 2008 (ACT 49 OF 2008) [HEREINAFTER REFERRED TO AS THE AMENDMENT ACT]

1. Please be informed that your application for prospecting of **Coal** on **portion of portion 14 of the farm Middelbult 235 IR**, situated in the Magisterial

4. Please submit **within 14 days** from date of this letter for the attention of ***Mr Siyabonga Panduva 3 copies of a complete prospecting work programme prepared in terms of regulation 7 of the Mineral and Petroleum Resources Development Act, 2002 (Act no 28 of 2002): Mineral and Petroleum Development Regulation.***

5. Please take note that failure to adhere to the timeframe stipulated above and to submit any documentation required in terms of this notice will result into non-compliance with the provision of the Act and the Amendment Act and will result in your application being processed refusal.

Yours faithfully

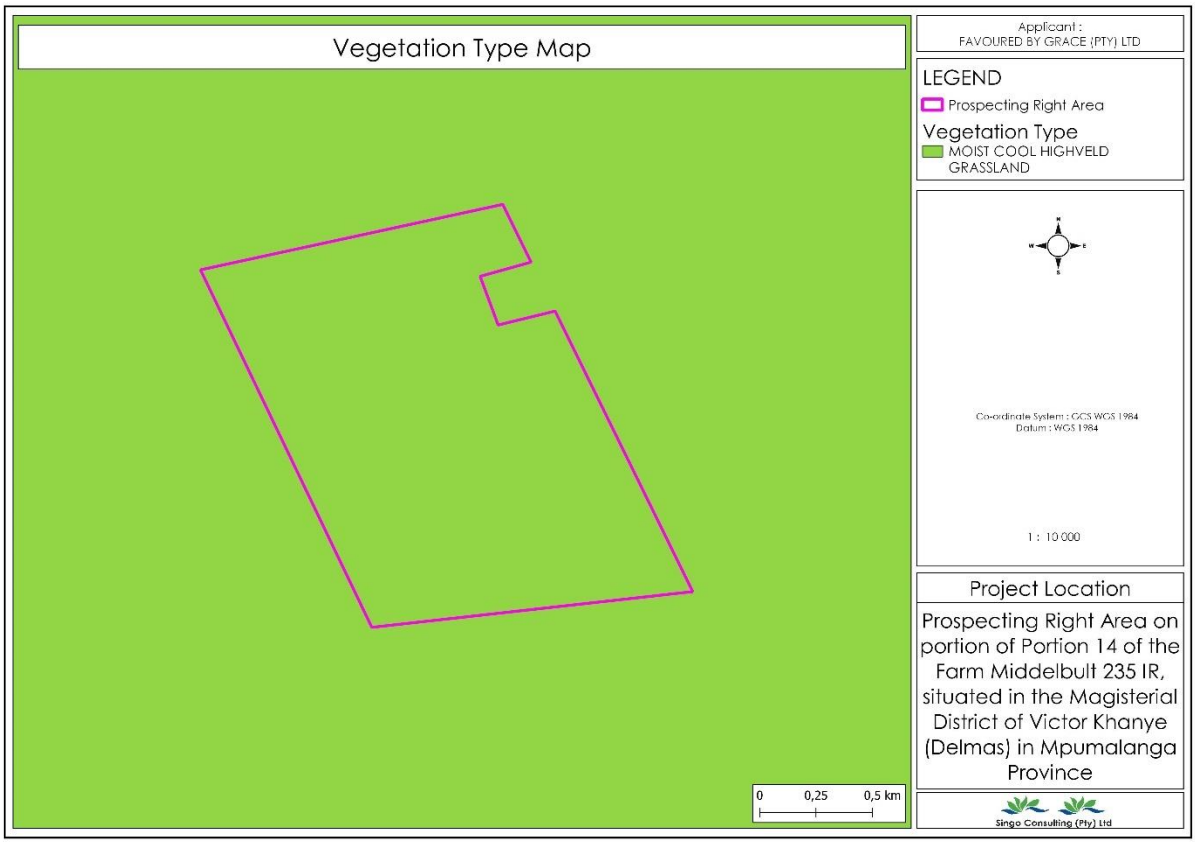
REGIONAL MANAGER
MPUMALANGA REGION
DATE: 09/05/2022

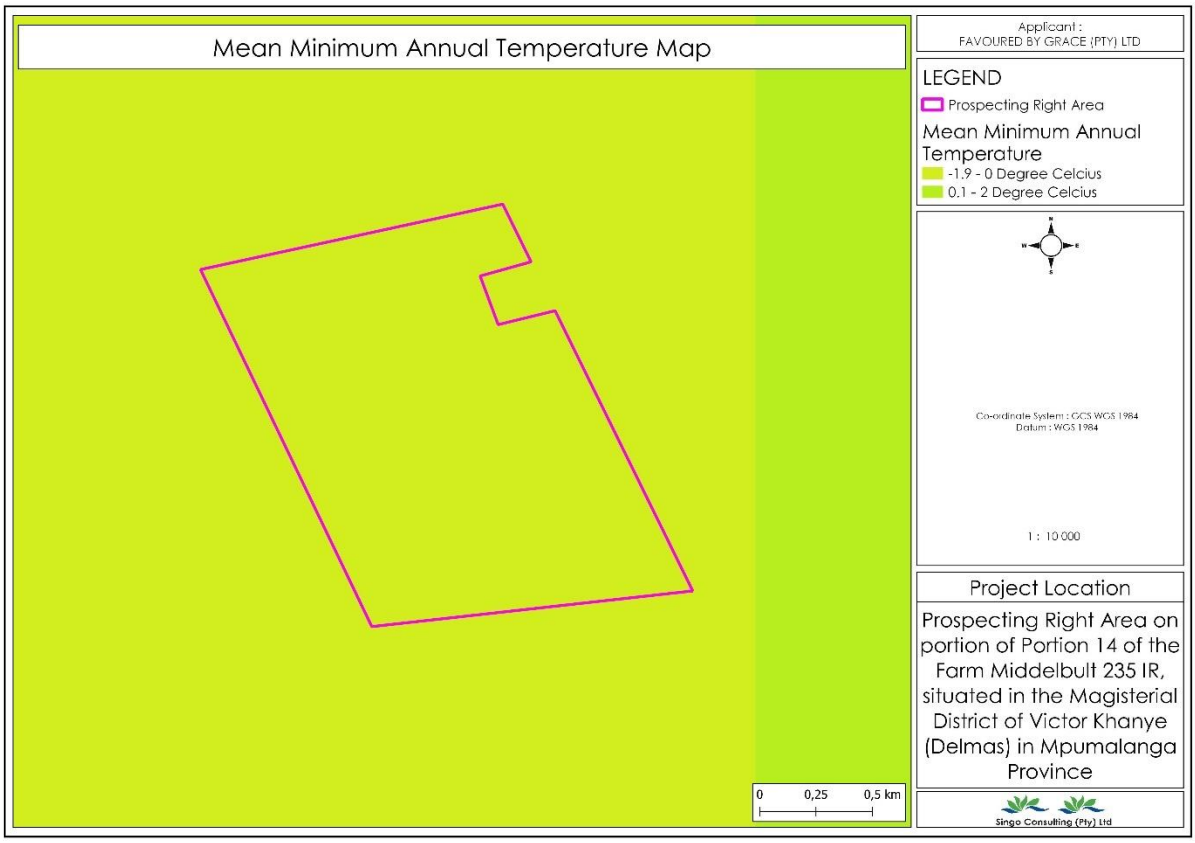
Acceptance of a Prospecting Right of Favoured by grace (Pty) Limited under file reference number 17283 PR- Lucky

Curriculum Vitae of the EAP

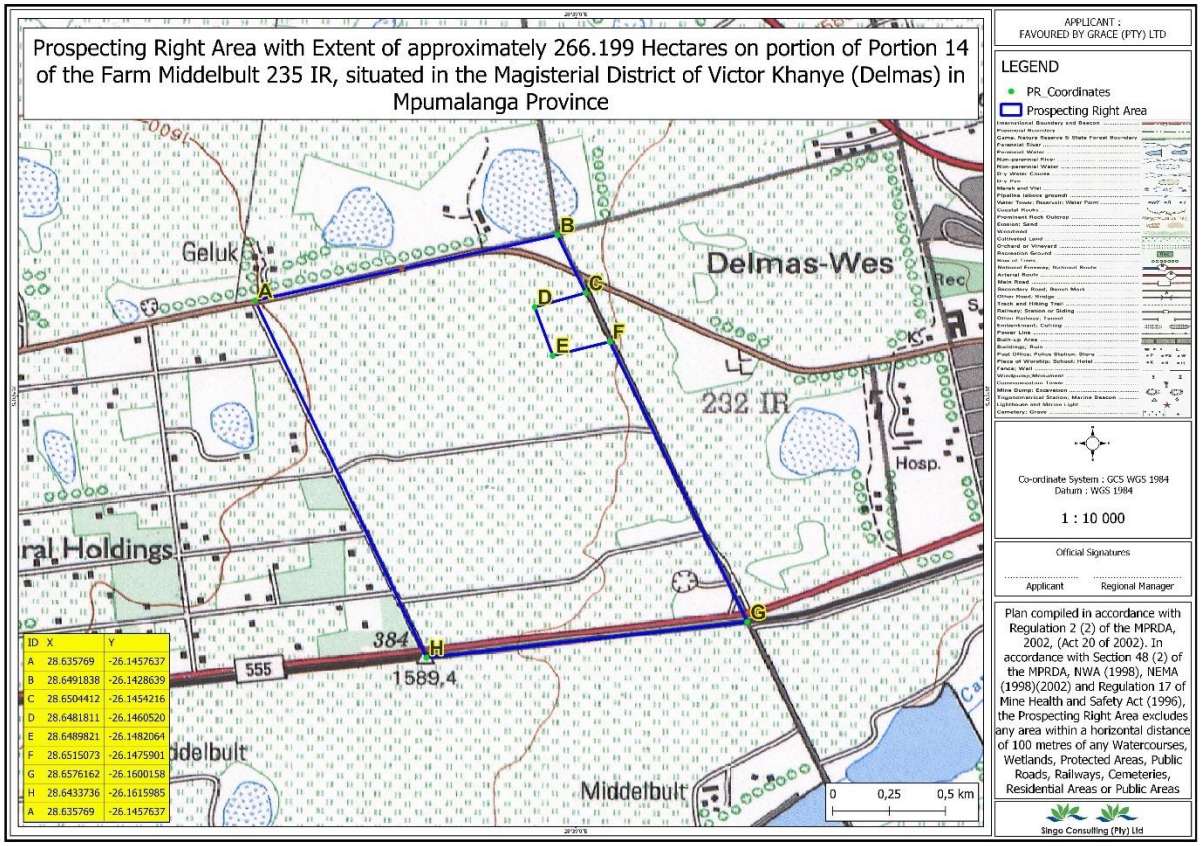
Due to the POPIA ACT the Curriculum Vitae will be made available to DMRE only.

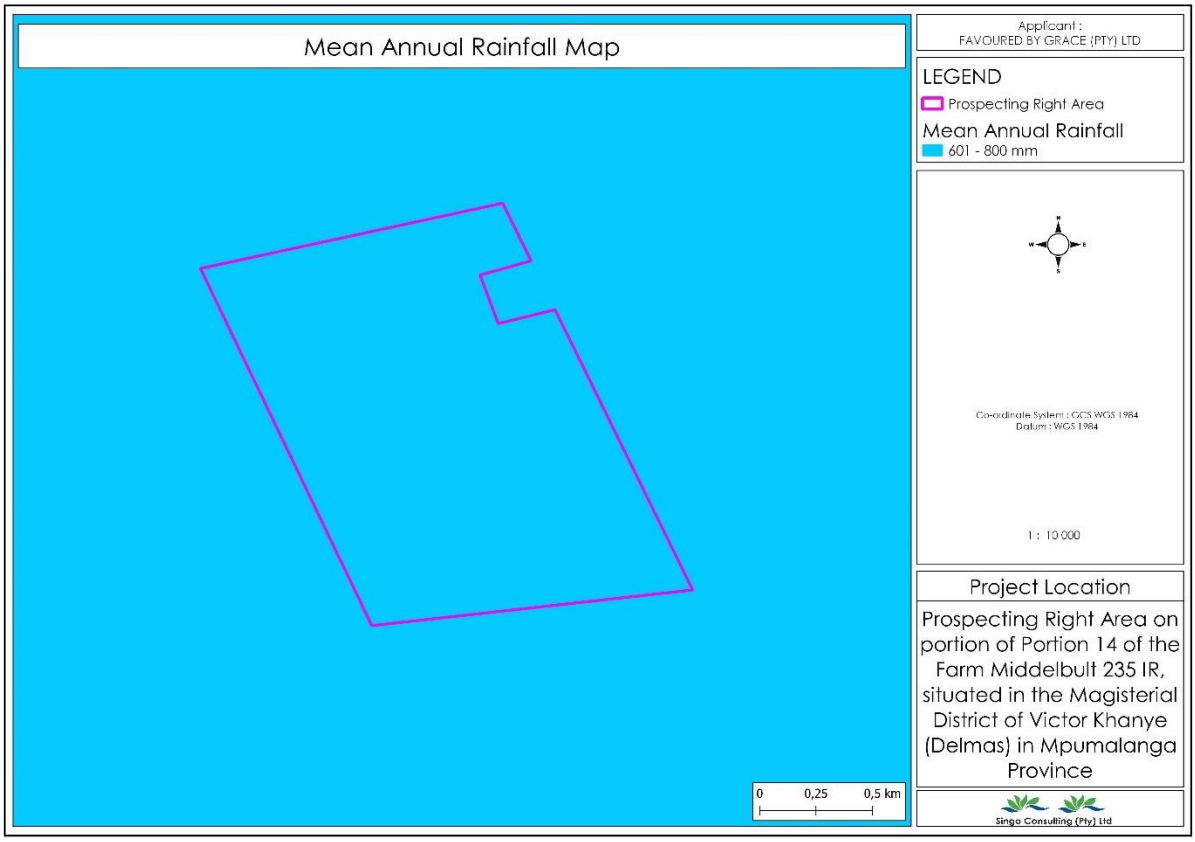
Appendix 2: Project maps

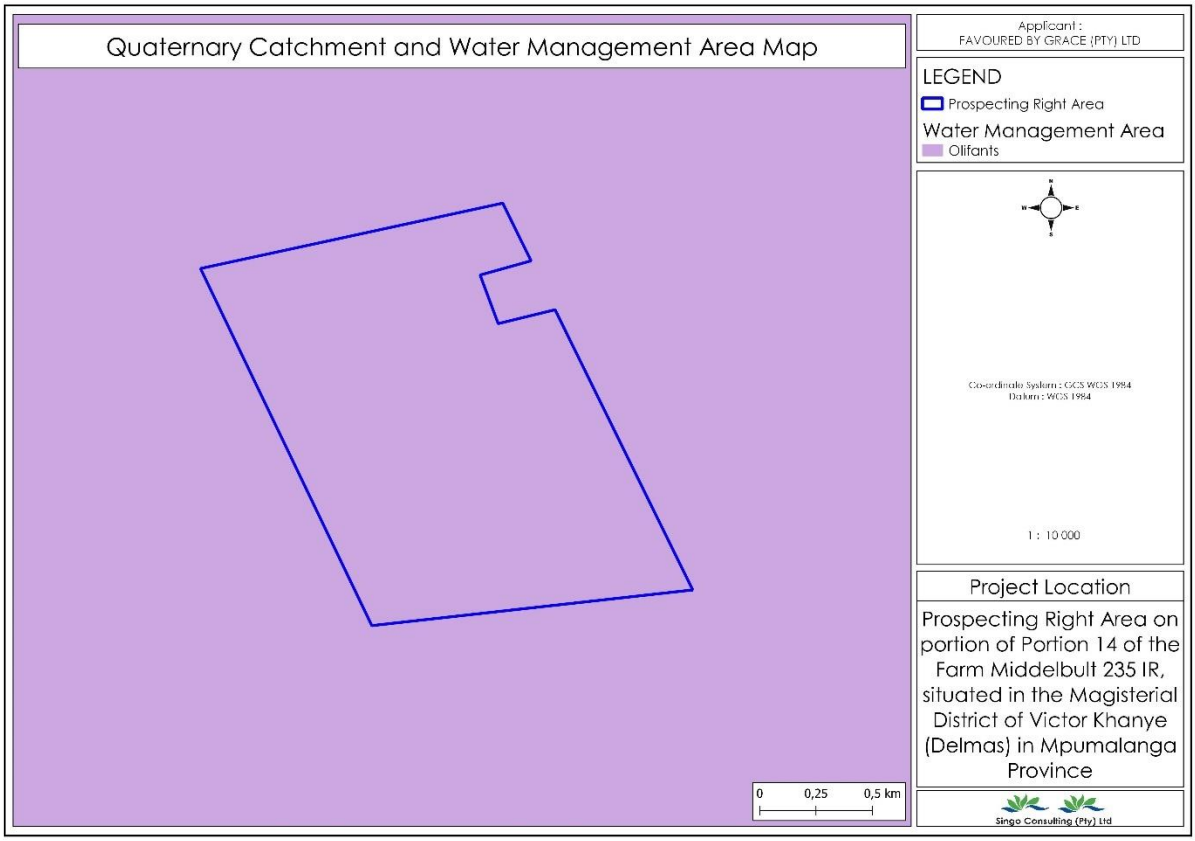


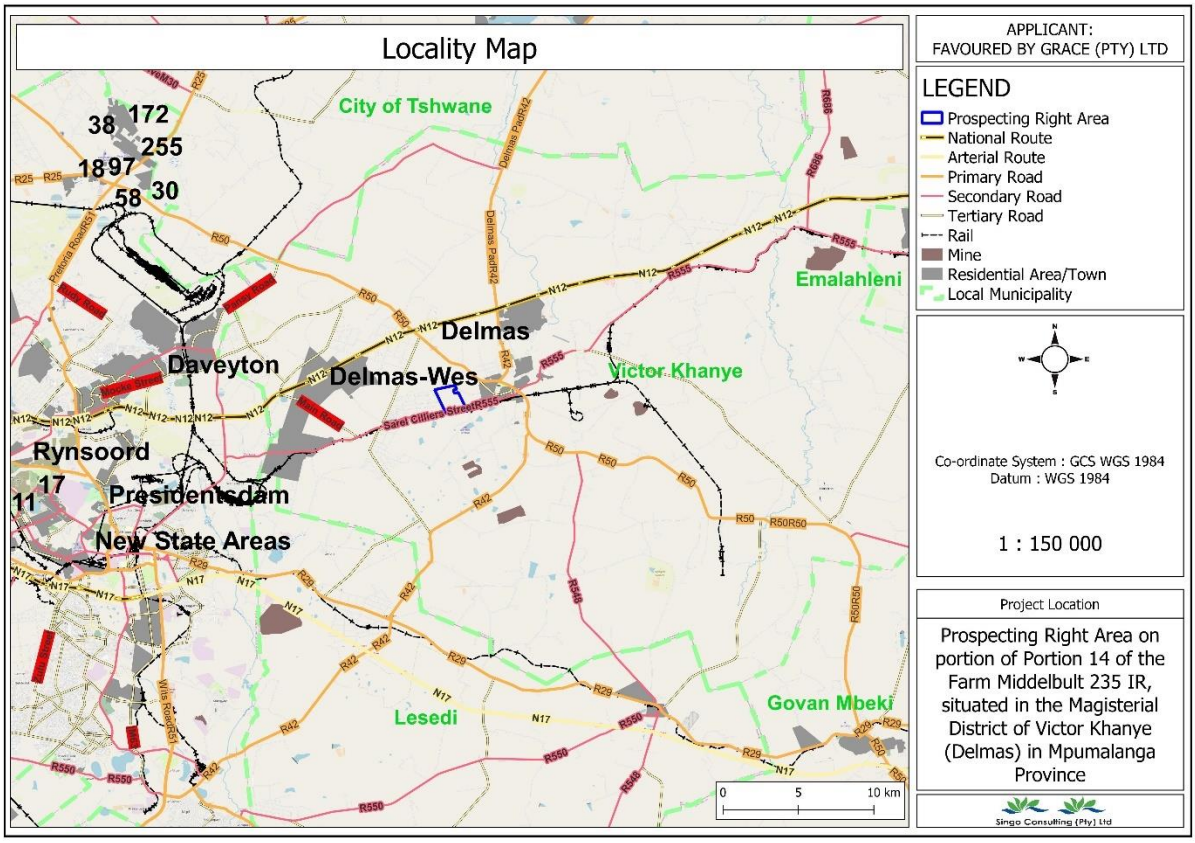


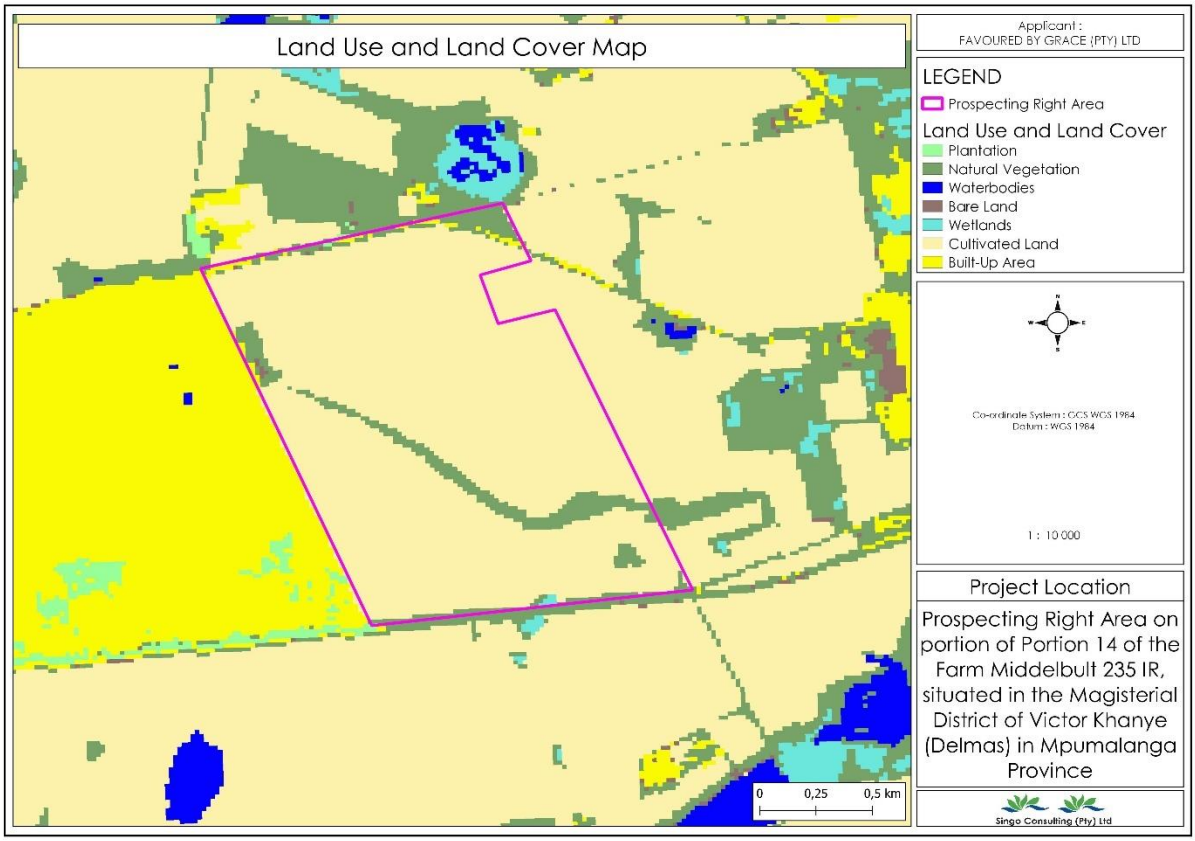

Soil Classes Map
Applicant :
FAVOURED BY GRACE (PTY) LTD
LEGEND
Prospecting Right Area
Soil Classes
Freely drained, structureless soils
Red or yellow structureless soils with a plinthic horizon
Co-ordinate System : GCS WGS 1984
Datum : WGS 1984
1 : 10 000
Project Location
Prospecting Right Area on portion of Portion 14 of the Farm Middelbult 235 IR, situated in the Magisterial District of Victor Khanye (Delmas) in Mpumalanga Province
0 0,25 0,5 km
Singo Consulting (Pty) Ltd

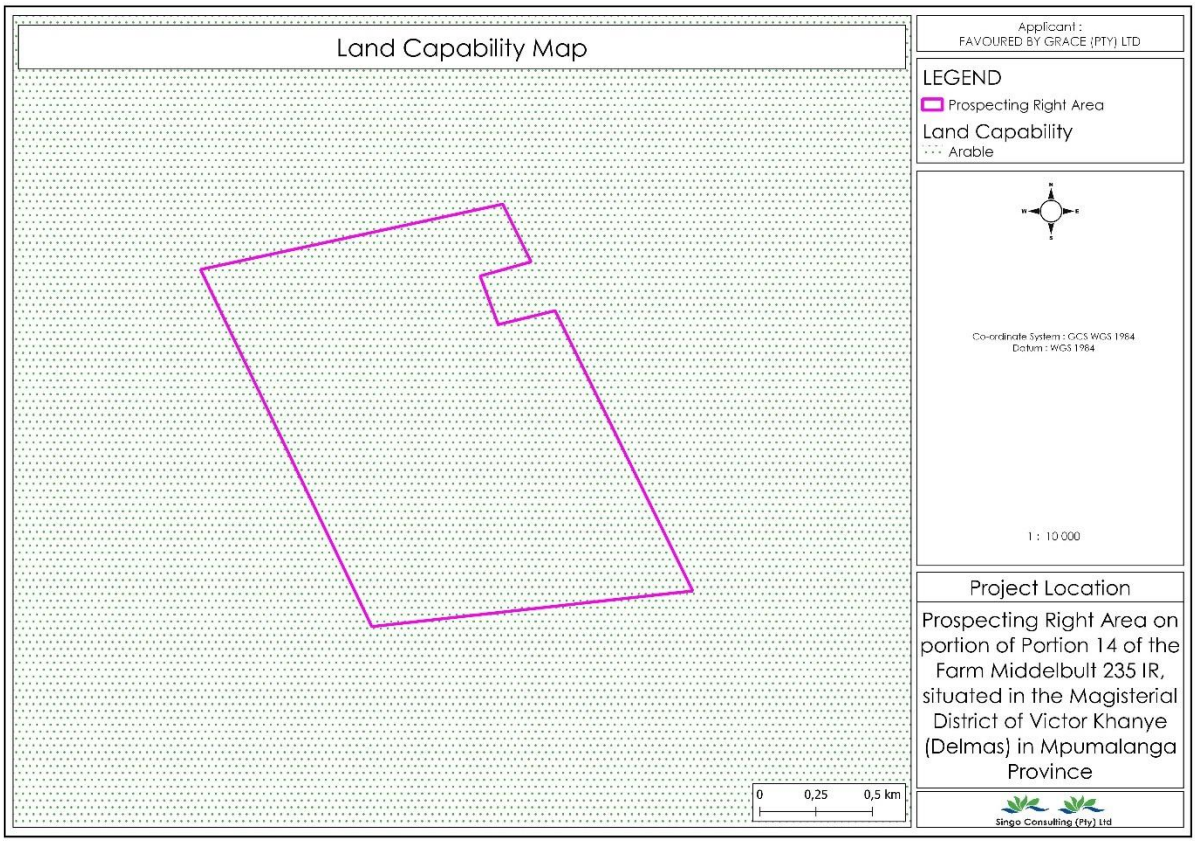

Prospecting Right Area with Extent of approximately 266.199 Hectares on portion of Portion 14 of the Farm Middelbult 235 IR, situated in the Magisterial District of Victor Khanye (Delmas) in Mpumalanga Province
APPLICANT :
FAVOURED BY GRACE (PTY) LTD
LEGEND
PR_Coordinates
Prospecting Right Area
Geluk
Delmas-Wes
232 IR
Hosp.
ral Holdings
555
384
1589,4
Middelbult
A
B
C
D
E
F
G
H
ID X Y
A 28.635769 -26.1457637
B 28.6491838 -26.1428639
C 28.6504412 -26.1454216
D 28.6481811 -26.1460520
E 28.6489821 -26.1482064
F 28.6515073 -26.1475901
G 28.6576162 -26.1600158
H 28.6433736 -26.1615985
A 28.635769 -26.1457637
Co-ordinate System : GCS WGS 1984
Datum : WGS 1984
1 : 10 000
Official Signatures
Applicant
Regional Manager
Plan compiled in accordance with Regulation 2 (2) of the MPRDA, 2002, (Act 20 of 2002). In accordance with Section 48 (2) of the MPRDA, NWA (1998), NEMA (1998)(2002) and Regulation 17 of Mine Health and Safety Act (1996), the Prospecting Right Area excludes any area within a horizontal distance of 100 metres of any Watercourses, Wetlands, Protected Areas, Public Roads, Railways, Cemeteries, Residential Areas or Public Areas
0 0,25 0,5 km
Singo Consulting (Pty) Ltd


Mean Annual Rainfall Map
Applicant :
FAVOURED BY GRACE (PTY) LTD
LEGEND
Prospecting Right Area
Mean Annual Rainfall
601 - 800 mm
Co-ordinate System : GCS WGS 1984
Datum : WGS 1984
1 : 10 000
Project Location
Prospecting Right Area on portion of Portion 14 of the Farm Middelbult 235 IR, situated in the Magisterial District of Victor Khanye (Delmas) in Mpumalanga Province
0 0,25 0,5 km
Singo Consulting (Pty) Ltd


Quaternary Catchment and Water Management Area Map
Applicant :
FAVOURED BY GRACE (PTY) LTD
LEGEND
Prospecting Right Area
Water Management Area
Olifants
Co-ordinate System : GCS WGS 1984
Datum : WGS 1984
1 : 10 000
Project Location
Prospecting Right Area on portion of Portion 14 of the Farm Middelbult 235 IR, situated in the Magisterial District of Victor Khanye (Delmas) in Mpumalanga Province
0 0,25 0,5 km
Singo Consulting (Pty) Ltd


Locality Map
City of Tshwane
Emalahleni
Delmas
Daveyton
Delmas-Wes
Victor Khanye
Rynsoord
Presidentsdam
New State Areas
Lesedi
Govan Mbeki
38
172
255
18
97
58
30
17
11
0
5
10 km
APPLICANT:
FAVOURED BY GRACE (PTY) LTD
LEGEND
Prospecting Right Area
National Route
Arterial Route
Primary Road
Secondary Road
Tertiary Road
Rail
Mine
Residential Area/Town
Local Municipality
Co-ordinate System : GCS WGS 1984
Datum : WGS 1984
1 : 150 000
Project Location
Prospecting Right Area on portion of Portion 14 of the Farm Middelbult 235 IR, situated in the Magisterial District of Victor Khanye (Delmas) in Mpumalanga Province
Singo Consulting (Pty) Ltd


Land Use and Land Cover Map
0
0,25
0,5 km
Applicant :
FAVOURED BY GRACE (PTY) LTD
LEGEND
Prospecting Right Area
Land Use and Land Cover
Plantation
Natural Vegetation
Waterbodies
Bare Land
Wetlands
Cultivated Land
Built-Up Area
Co-ordinate System : GCS WGS 1984
Datum : WGS 1984
1 : 10 000
Project Location
Prospecting Right Area on portion of Portion 14 of the Farm Middelbult 235 IR, situated in the Magisterial District of Victor Khanye (Delmas) in Mpumalanga Province
Singo Consulting (Pty) Ltd


Land Capability Map
Applicant :
FAVOURED BY GRACE (PTY) LTD
LEGEND
Prospecting Right Area
Land Capability
Arable
Co-ordinate System : GCS WGS 1984
Datum : WGS 1984
1 : 10 000
Project Location
Prospecting Right Area on portion of Portion 14 of the Farm Middelbult 235 IR, situated in the Magisterial District of Victor Khanye (Delmas) in Mpumalanga Province
0
0,25
0,5 km
Singo Consulting (Pty) Ltd

Appendix 3: Public Participation Process

Background Information Document

BACKGROUND INFORMATION DOCUMENT

APPLICANT:

FAVOURED BY GRACE (PTY) LTD

Address: 98 N12 Ext 5
Botleng
Delmas
Mpumalanga
2210

Contact Person: Ms Mildred Mphali
Cell: +27 78-770-9350
Email: kamagubela@gmail.com

CONSULTANT:

Singo Consulting (Pty) Ltd

Address: P/Bag X7297, Postnet Suite 87, Witbank, 1035
Office 870
05 Balalaika St
Tasbet Part Ext 2
Witbank
1040
Contact person: Ms Valentine Mhlanga
Cell: +27 81 8130 654
Email: valentine@singoconsulting.co.za

CELEBRATING 10 YEARS IN BUSINESS

INTRODUCTION AND THE PURPOSE OF THIS DOCUMENT

Singo Consulting (Pty) Ltd has been appointed as an independent Environmental Consultant by **Favoured by Grace (Pty) Ltd** for the purpose of Prospecting for **Coal** on portion of portion 14 the farm **Middelbult 235 IR** situated under the Magisterial District of Delmas in the **Victor Khanye Local Municipality (DMRE Ref: MP 30/5/1/1/2/17283 PR).**

The Purpose of this Background Information Document (BID) is to provide a perfunctory description of the project and outline EIA processes to be followed and contributions from Stakeholders, Interested and Affected Parties (I&APs) on the issues related to the project in question, allowing comments and concerns to be raised.

Results of the EIA (through BAR & EMPR), both negative and positive will be submitted and made available to the relevant Departments such as the Department of Mineral Resources & Energy and if requested, Environmental Affairs, Water and Sanitation, Landowners, and other interested stakeholders.

This Background Information Document therefore requests and invite I&APs to comment on the environmental, physical, social, and economic impacts associated with the proposed prospecting activities.

Be assured that your comments are of great value as they ensure that relevant issues are taken into consideration. Attached at the end of this document is a registration form, kindly complete it and send it back to consultant details provided on the left of this page.

PROJECT LOCATION

The prospecting area, as seen in Figure 1 and Figure 2 below, is situated approximately 4.16 km South West of Delmas, about 1.3 km West of Delmas License Testing Centre and the project boundary is along the R555 road.

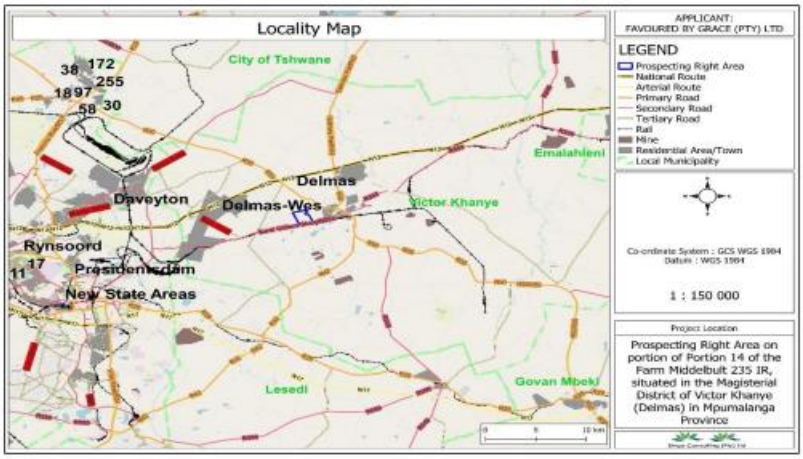


Figure 1: Locality map of the area.

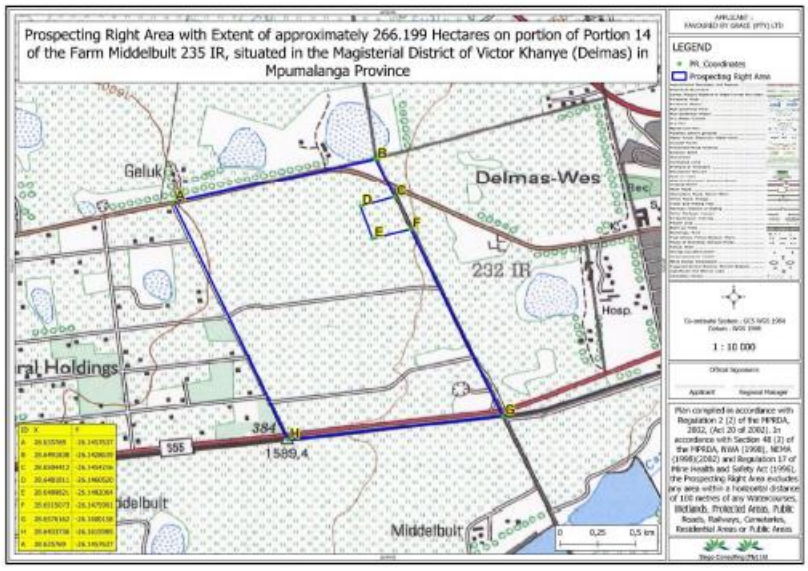


Figure 2: Reg 2.2 map

Type of Activity to be undertaken

Prospecting activities will be undertaken over a period of five (5) years and are designed in phases, each phase is conditional on the success of the previous phase. Both invasive and non-invasive methods will be implemented. Invasive are those activities which have footprint or cause harm (if not mitigated or managed properly) or those that have a physical impact on the environment, while non-invasive do not cause any harm or effects on the environment.

Non-invasive: Desktop study of the area has commenced, and this incorporates desktop geographical and geological mapping. This will be followed by detailed geochemical and geotechnical surveys. In turn, this is followed by detailed geophysical studies.

Invasive: A detailed drilling, sampling, assaying and mineralogical study will be carried out. Diamond drilling method will be utilised to prospect coal deposits. To ensure or minimise impacts on the receiving environment, All the activities will be guided by the project's BAR & EMPr.

REGULATORY FRAMEWORK & PUBLIC PARTICIPATION PROCESS

The EIA process to be undertaken will be conducted in accordance with the National Environmental Management Act (Act 107 of 1998) and Environmental Impact Assessment regulations as amended (April 2017). The activity is to prospect the existence and occurrence of the above-mentioned minerals therefore, this will be conducted in accordance with Mineral and Petroleum Resources Development Act, (Act 28 of 2002). Other regulatory guidelines to be followed include National Water Act, 1998 (Act 36 of 1998), National Dust Control Regulations (GN 36974: 2013) and National Air Quality Standards (GN 1210: 2009).

These all will accurately be followed to ensure that identified impacts are assessed and mitigated according to their significance so that the protection of the receiving environment and populations is met. These are planning and decision-making tools used in identifying potential environmental, economic, and social consequences of a proposed activity prior the commencement of the activity.

These together with the public issues and concerns are to be identified sufficiently early so that they can be assessed and incorporated into the final reports when/if necessary. These tools are regarded crucial because they are utilized to demonstrate to the relevant stakeholders about the potential impacts, which in turn leads to the Mining application process being a success or declined.

Public Participation remains a cornerstone of the Environmental Impact Assessment process. It ensures provision of relevant and enough information with openness and transparency. Public Participation process (PPP) presents to I&APs, an opportunity to understand what the project is about, and affords them an opportunity to make valuable contributions towards the EIA process. I&AP can be any person, group of persons or organization interested in or affected by the proposed activity, and any organ of state that may have jurisdiction over any aspect of the activity.

The key objective of PPP is to afford the I&APs with an opportunity to comment and provide valuable inputs during the planning phase of the project. For this specific proposed project, IAPs will be given a period of 30 days to comment and raise issues/concerns with regards to this BID.

As part of the EIA process, more especially the Public Participation Process (PPP) for this proposed project, Interested and Affected Parties (I&APs) are invited to register and kindly submit any comments or concerns to reach **Ms Valentine Mhlanga** using the contact details provided below. The public is also invited to review and comment on the Draft Basic Assessment Report and Environmental Management Programme (EMPr)

Kindly keep the following dates:

- Stakeholder engagement and consultation: **On-going throughout the process of compiling the BAR & EMPr**
- Review of draft Basic Assessment Report (BAR) and Environmental Management Programme report (EMPr): **Tuesday the 16th of August 2022 to Thursday the 15th of September 2022.**
- The Draft BAR & EMPr will be available at **Delmas Public Library (Cnr Sarel Cilliers & Van Riebeeck, 2210 Delmas, Mpumalanga)** and a soft copy upon request from Singo Consulting (Pty) Ltd using the detailed EAP's contact's below or directly from our office.

Singo Consulting (Pty) Ltd

Address: Balalaika Street,
Tasbet Park Ext 2,
eMalahleni,
1040
Cell: +27 81 8130 654
Email: valentine@singoconsulting.co.za/
admin@singoconsulting.co.za

REGISTRATION & COMMENT SHEET- (DMRE Ref: MP 30/5/1/1/2/17283 PR)

Attention: **Valentine Mhlanga** Email: valentine@singoconsulting.co.za

Title		Name		Surname	
Company					
Designation					
Address					
Tel No.			Fax No.		
E-mail			Cell No.		
I would like to receive my notifications be (mark with "X"):			Post	E-mail:	
				Fax:	
	Please indicate why you would have an interest in the above-mentioned project.				
	Please provide your comments and questions here:				
	Please feel free to attach a separate document				
	Please add any person you think may be interested and affected parties:				
Full name			Company		
Address					
E-mail			Contact No		

Appendix 4: Landowner Consultation

Landowner notification letter

Dear Landowner (Kallie-Madel Trust),

Prospecting right application for Coal on portion of portions 14 of the farm Middelbult 235 IR, situated in the Magisterial District of Delmas in Victor Khanye Local Municipality, Mpumalanga Province (DMRE Ref: MP 30/5/1/1/2/17283 PR).

Receive warm greetings from Singo Consulting (Pty) Ltd.

Singo Consulting (Pty) Ltd on behalf **Favoured by Grace (Pty) Ltd** hereby wish to inform you that it has submitted application for a Prospecting right Application together with an Environmental Authorization to the Mpumalanga Department of Mineral Resources and Energy (DMRE) for the purpose of establishment of **coal** on portion of portion 14 of the farm Middelbult 235 IR, situated in the Magisterial District of Delmas in the Victor Khanye Local Municipality, Mpumalanga Province.

This Notification is being given in compliance with the terms of: Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA), National Environmental Management Act, 1998 (Act No. 107 of 1998), and EIA Regulations (as amended, 07 April 2017) which requires that stakeholders must be notified of the above-mentioned company intention to obtain Environmental Authorization for prospecting the above-mentioned minerals.

This invitation is being extended to you because you are the landowner who can be enforcing any of the Republic of South Africa's laws of which ensures; prevention of pollution & environmental degradation, promotes sustainable development & socio-economic development, or instead might be affected by mining activities. Hence you are being offered an opportunity to:

- Register as an I&AP and to respond to the environmental compliance process.
- Raise issues of concerns and provide suggestions for enhanced benefits.
- Contribute to local knowledge.
- Comment on the Draft Basic Assessment Report (DBAR) & Environmental Management Programme Report (EMPr)

Singo Consulting (Pty) Ltd has been appointed as an independent Environmental Assessment Practitioner (EAP) to manage the Environmental Authorization process, by conducting Environmental Impact Assessment, Public Participation for the proposed project and compile an Environmental Management Programme Report. A Basic Assessment process has commenced and although it being a basic assessment process with associated specialist

studies will be conducted for this project to prospect coal over the farm portions. For you to fully participate, kindly fill the registration and comment form at the end of this letter to register your comments, issues, questions that you may have about the proposed project.

Kindly note that as the landowner your comments are critical in decision making at the Department of Minerals Resources and Energy (DMRE) concerning the proposed project. Should you have any queries regarding the proposed project, please do not hesitate to contact the appointed EAP on the details provided below.

Singo Consulting (Pty) Ltd

+27 13 692 0041
+27 78 2727 839
+27 72 081 6682
kenneth@singoconsulting.co.za
www.singoconsulting.co.za
Office 870
5 Balalaika Street
Tasbet Park Ext 2
Witbank
+27 86 514 4103

Protect & manage the best remaining environment

I, _____herewith acknowledge receipt of:

ONE (1) COPY OF THE LETTER ENTITLED: **Prospecting Right Application Coal on portion of portion 14 of the farm Middelbult 235 IR, situated in the Magisterial District of Delmas in the Victor Khanye Local Municipality, Mpumalanga Province (DMRE Ref: MP 30/5/1/1/2/17283 PR).**

Please comment and return to:

Physical address:	Office 870, 5 Balalaika Street Tasbet Park Ext 2 Witbank, Emalahleni, 1035
Postal address	P/Bag X7297 Postnet Suite 87 Highveld Mall Witbank 1035
Tel No:	+27 13 6920 041
Cell No:	+27 81 8130 654
Fax No:	+27 86 5144 103
Email:	admin@singoconsulting.co.za valentine@singoconsulting.co.za

Personal Details:

Full Names and Surname:							
Contact Details:							
Tel(w):		**Tel(h):**		**Fax No:**		**Cell No:**	
Email:							
Physical Address:							

STAKEHOLDER INVITATION TO COMMENT ON THE PROSPECTING RIGHT APPLICATION ON PORTION OF P...

Reply | Reply All | Forward

VM Valentine, Mhlanga <valentine@singoconsulting.co.za>
To 'brent@witklip.co.za'
Cc 'Dr Singo, Kenneth'; 'Nokuthula Nkosi'; 'rudzani@singoconsulting.co.za'
Wed 7/27/2022 8:09 AM

Landonwer notification letter_favoured by grace.pdf
321 KB

Background Information Document-Favoured by Grace (Pty) Ltd.pdf
1 MB

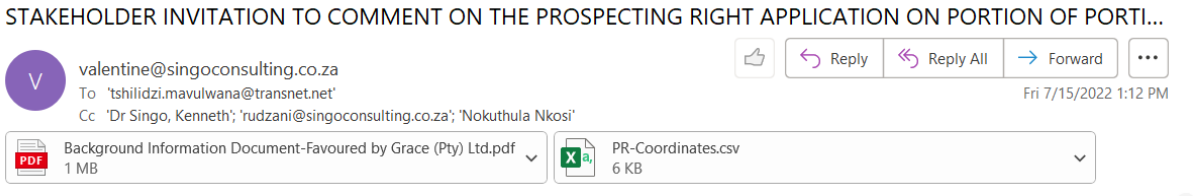
Windeed Search.pdf

Dear Landowner/s

Receive warm greetings from Singo Consulting (Pty) Ltd.

As per our telephonic conversation, kindly receive attached Landowner notification letter, Windeed Search Results and Background Information Document (BID) for detailed description of the proposed prospecting right application of coal on your land. Please go through the attachments and kindly get back to us for further engagement.

Appendix 5: Stakeholder Engagement Consultation



Good day,

Receive warm greetings from Singo Consulting (Pty) Ltd.

Singo Consulting (Pty) Ltd on behalf of **Favoured by Grace (Pty) Ltd** hereby wishes to inform you about coal prospecting right and environmental authorization applications that were lodged **on portion of portion 14 of the farm Middelbult 235 IR, under Delmas Magisterial District, Mpumalanga Province with DMRE REF: MP 30/5/1/1/2/17283 PR,** the proposed project area is on the boundary of the Transnet railway line along the R555 road.

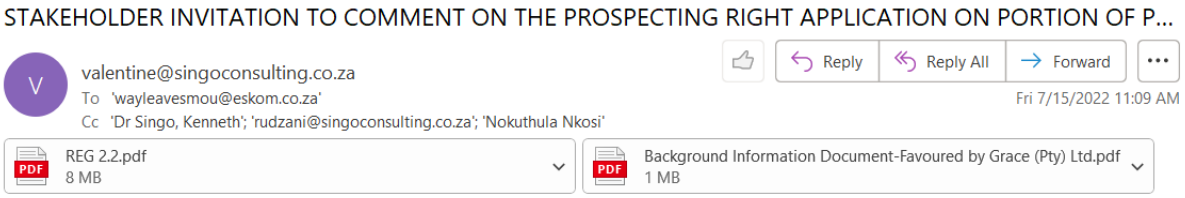
This invitation is extended to you as the department you serve may somehow enforce any of the laws of the Republic of South Africa that ensure; pollution prevention & environmental degradation, encourage sustainable development & socio-economic development, or might be affected by activities to be taking place instead. Hence you are being offered an opportunity to:

- ✓ Register as an Interested and Affected Party (I&AP) and to respond to the environmental compliance process;
- ✓ Raise issues of concern and provide suggestions for enhanced benefits;
- ✓ Contribute to local knowledge;
- ✓ Comment on Scoping Phase Report & Environmental Management Programme report (EMPr)

A scoping phase process has commenced, for your participation kindly fill the registration and comment form at the end of the Background Information Document attached and register your comments, issues, and/or questions that you may have about the proposed project. Should you need any clarity on the attached document or have any queries with regards to the project, please do not hesitate to contact me on the details below.

Please find the attached Background Information Document (BID) for brief description of the proposed project and timelines as well as the PR co-ordinates.

Should you know anyone who might be interested in this project, kindly forward this email to that person.



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- ✓ Raise issues of concern and provide suggestions for enhanced benefits;
- ✓ Contribute to local knowledge;
- ✓ Comment on Scoping Phase Report & Environmental Management Programme report (EMPr)

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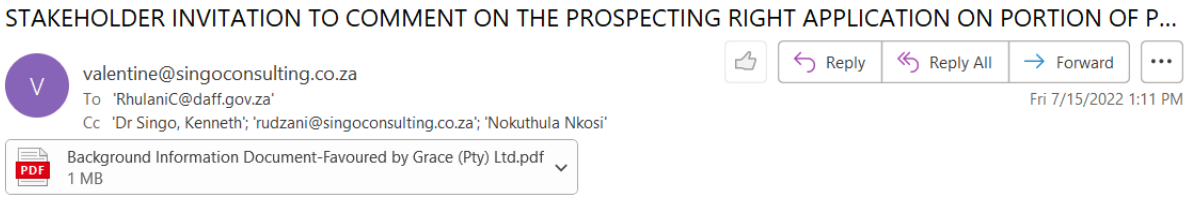
about the proposed project. Should you need any clarity on the attached document or have any queries with regards to the project, please do not hesitate to contact me on the details below.

Please find the attached Background Information Document (BID) for brief description of the proposed project and timelines.

Should you know anyone who might be interested in this project, kindly forward this email to that person.



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- ✓ Register as an Interested and Affected Party (I&AP) and to respond to the environmental compliance process;
- ✓ Raise issues of concern and provide suggestions for enhanced benefits;
- ✓ Contribute to local knowledge;
- ✓ Comment on Scoping Phase Report & Environmental Management Programme report (EMPr)

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RE: STAKEHOLDER INVITATION TO COMMENT ON THE PROSPECTING RIGHT APPLICATION ON PORTION ...

RC Rhulani Chavalala <RhulaniC@Dalrrd.gov.za>
To valentine@singoconsulting.co.za

Reply | Reply All | Forward

Mon 7/18/2022 11:33 AM

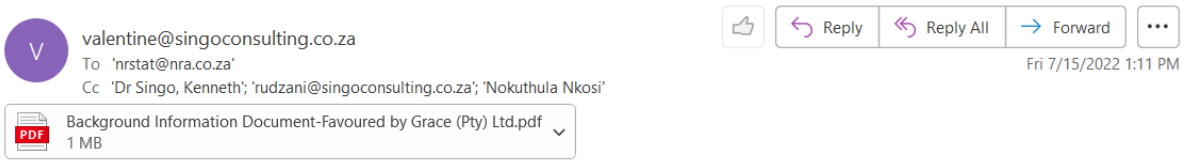
You replied to this message on 7/19/2022 8:18 AM.

Good day

Kindly register the Department of Agriculture, Land Reform and Rural Development as an interested and affected party.

Regards

STAKEHOLDER INVITATION TO COMMENT ON THE PROSPECTING RIGHT APPLICATION ON PORTION OF P...



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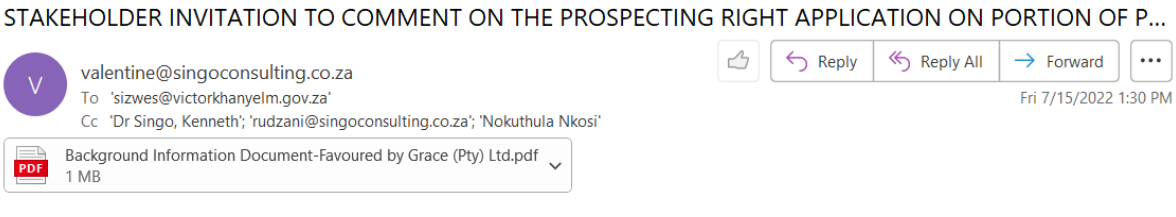

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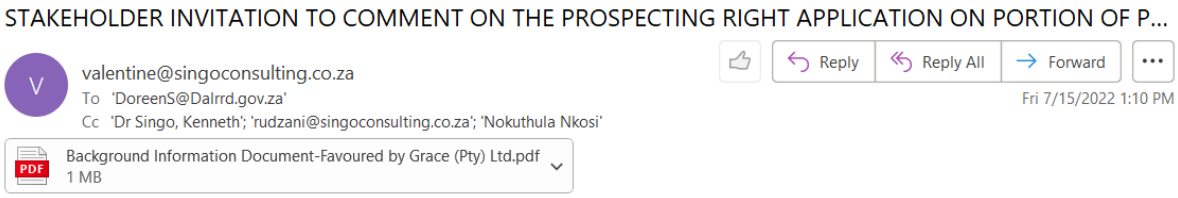

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RC Rhulani Chavalala <RhulaniC@Dalrrd.gov.za>
To valentine@singoconsulting.co.za

Reply | Reply All | Forward

Mon 7/18/2022 11:38 AM

You replied to this message on 7/19/2022 8:17 AM.

Good day

Kindly register the Department of Agriculture, Land Reform and Rural Development as an interested and affected party.

Regards

From: Doreen Sithole <DoreenS@Dalrrd.gov.za>
Sent: Friday, 15 July 2022 1:00 PM
To: Rhulani Chavalala <RhulaniC@Dalrrd.gov.za>
Subject: FW: STAKEHOLDER INVITATION TO COMMENT ON THE PROSPECTING RIGHT APPLICATION ON PORTION OF PORTION 14 OF THE FARM MIDDELBULT 235 IR; DMRE REF: MP 30/5/1/1/2/17283 PR

Good day Rhully

For allocation

STAKEHOLDER INVITATION TO COMMENT ON THE PROSPECTING RIGHT APPLICATION ON PORTION OF P...

V valentine@singoconsulting.co.za
To 'PMakitla@dffe.gov.za'
Cc 'Dr Singo, Kenneth'; 'rudzani@singoconsulting.co.za'; 'Nokuthula Nkosi'

Reply | Reply All | Forward

Fri 7/15/2022 1:11 PM

Background Information Document-Favoured by Grace (Pty) Ltd.pdf
1 MB

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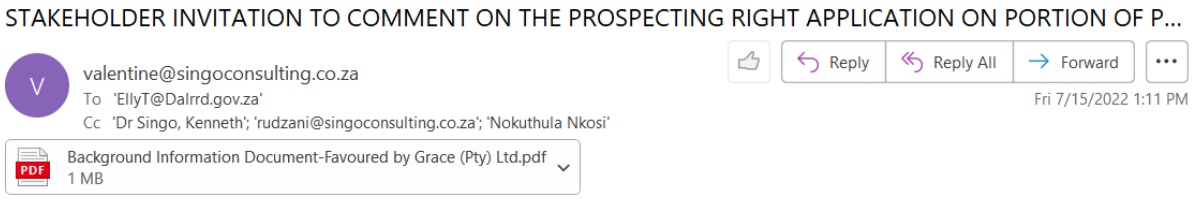

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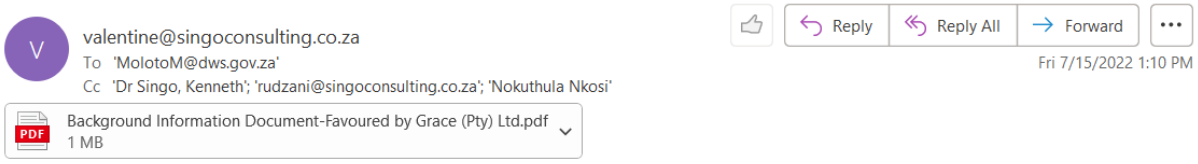

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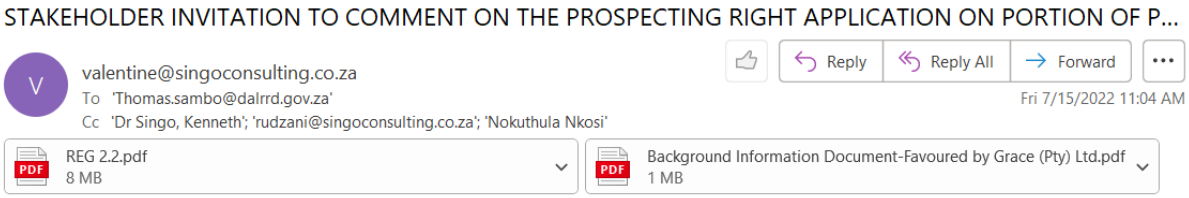


Good day,

I hope this email finds you well.

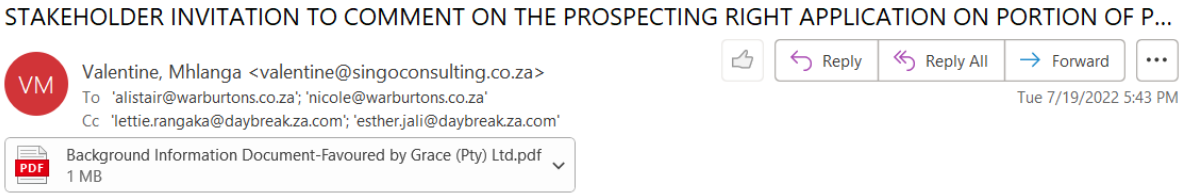
You are kindly receiving this email as an enquiry for any possible land claim on **portion of portion 14 of the farm Middelbult 235 IR** where Prospecting Right and Environmental Authorization Applications have been lodged in the above-mentioned property **under Delmas Magisterial District, Mpumalanga Province (DMRE REF: MP 30/5/1/1/2/17283 PR).**

Kindly review attached BID and Regulation map 2.2 for detailed description of proposed project. This is to ensure that all claimants are properly consulted and are given opportunity to:

- Register as an I&APs and to respond to the environmental compliance process;
- Raise issues of concern and provide suggestions for enhanced benefits;
- Contribute to local knowledge;
- Comment on the Basic Assessment Report & Environmental Management Programme report (EMPr); and

- Inform any other person / organization that they may feel should be informed about the project.

Your comments will be highly appreciated as they will assist us in developing a well-informed Basic Assessment Report (BAR) and Environmental Management Programme (EMPr).



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Good day Mervyn,

Receive warm greeting from Singo Consulting (Pty) Ltd.

I'm hereby to request sensitivity maps of portion of portion 14 of the farm Middelbult 235 IR, under the Magisterial district of Delmas, Mpumalanga Province.

Kindly find the attached regulation map above.

Your assistance will be highly appreciated.

REQUEST SENSITIVITY MAPS OF PORTION OF PORTION 14 OF THE FARM MIDDELBULT 235 IR

PN Phumla Nkosi <Phumla.Nkosi@mtpa.co.za>
To valentine@singoconsulting.co.za
Cc Mervyn Lotter

Reply | Reply All | Forward | ...
Mon 7/18/2022 8:49 AM

Click here to download pictures. To help protect your privacy, Outlook prevented automatic download of some pictures in this message.

Middelbult MBSP FW.jpg 279 KB
Middelbult MBSP.jpg 300 KB
SpeciesStatusReport Middelbult.rtf 8 KB

Good Morning Valentine

I hope you are well , please find the attached biodiversity maps as requested.

Kind Regards
Phumla Nkosi

STAKEHOLDER INVITATION TO COMMENT ON THE PROSPECTING RIGHT APPLICATION ON PORTION OF P...

VM Valentine, Mhlanga <valentine@singoconsulting.co.za>
To 'masilelaoupa@webmail.co.za'
Cc 'rudzani@singoconsulting.co.za'; 'Dr Singo, Kenneth'; 'Nokuthula Nkosi'

Reply | Reply All | Forward | ...
Wed 8/3/2022 12:11 PM

Background Information Document-Favoured by Grace (Pty) Ltd.pdf 1 MB

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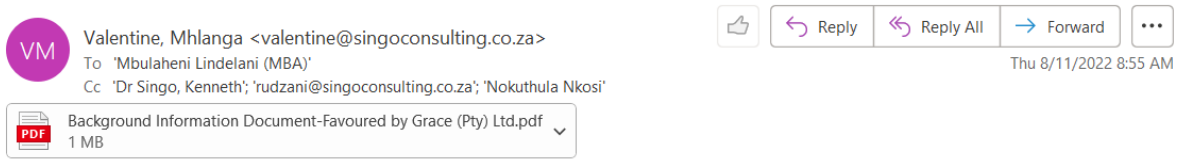

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Valentine, Mhlanga
EAP Intern
BSc. Hons Environmental Sciences with Geography & Environmental Management
Operation Hi Teka Hinkwaswo
+27 81 813 0654
+27 13 692 0041
valentine@singoconsulting.co.za
+27 86 514 4103
www.singoconsulting.co.za
Singo Consulting (Pty) Ltd
Linked
Office 870, 5 Balalaika Street, Tasbet Park Ext 2, Witbank,1040
Protect & manage the best remaining environment

Senders Copy

PNA81935522956

PostNet Name: PostNet - Ben Fleur

Tel. No.: (+27) 013 697 1220 **Acc. No.:** PN819

From: (Sender) (Company Name)	PostNet - Ben Fleur	To: (Receiver) (Company Name)	MTPA
Street Address	Shop 23 Ben Fleur Bloulevard Cnr. Paul & Da Vinci Streets	Street Address	N4 HALLS GATE WAY MATAFIN BLOCK G ROOM 3D
Suburb	Witbank — City/Town: Witbank	Suburb	Nelspruit — City/Town: Nelspruit - NLP
Country	South Africa — Code: 1035	Country	South Africa — Code: 1201
Contact	SINGO CONSULTING — Tel: (+27) 713627594	Contact	PHUMLA NKOSI — Tel: (+27) 132540279
E-mail	benfleur@postnet.co.za	E-mail	

Insurance: Yes ✓ If yes, state value — Print and sign if "No"

Domestic: ☑ Overnight Courier ☐ Economy (48-72hrs) ☐ Dawn Courier ☐ Saturday ☐ Non Express (24-48hrs) ☐ Same Day Courier ☐ Other Specify ☐ Public Holiday After Hours

SPECIAL INSTRUCTIONS

International: ☐ DOCUMENTS ☐ NON-DOCUMENTS

WE HAVE SEEN AND AGREE TO THE STANDARD CONDITIONS OF CARRIAGE (OVERLEAF) WHICH SHALL APPLY TO THIS CONSIGNMENT AND ALL FUTURE CONSIGNMENTS ACCEPTED BY POSTNET. WE FURTHER DECLARE THAT THIS CONSIGNMENT DOES NOT CONTAIN DANGEROUS GOODS.

No. of Parcels	Description of goods	Length in cm	Breadth in cm	Height in cm	Mass in kg
1	Flyer Bag	40.00	30.00	1.00	1.00
1	Total No. of Parcels	Total Vol	0.24	Total Mass	1.00

EXPRESS PACK SECURITY NUMBER ON LIP OF FLYER:

SENDER'S DETAILS

Name: SINGO CONSULTING **Date:** 2022-08-01

Signature: [signature] **Time:** 15:37:30

POSTNET AND ARAMEX RESERVE THE RIGHT TO MARK THE SERVICE "OVERNIGHT EXPRESS" FOR "DOMESTIC" SHOULD NO SERVICE BE SELECTED

ACCEPTED BY POSTNET

Name: MARIE

Signature:

Date: 2022-08-01 Time: 15:37:30

CHARGES	RANDS	CENTS
Basic Tariff		
Surcharge		
Insurance		
Packaging Surcharge		
VAT		
TOTAL INCL. VAT		

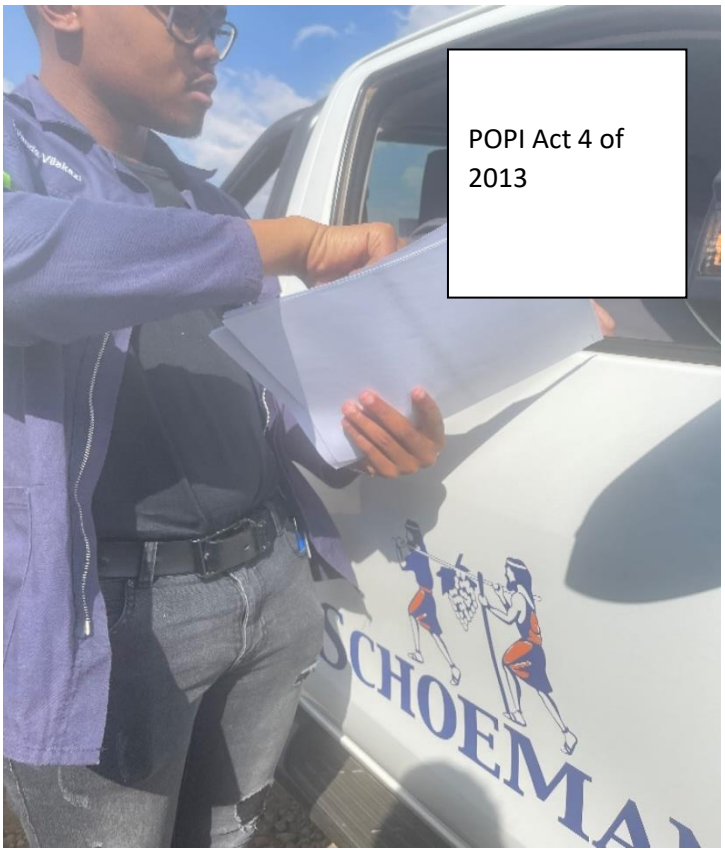
POSTNET Courier

an aramex company

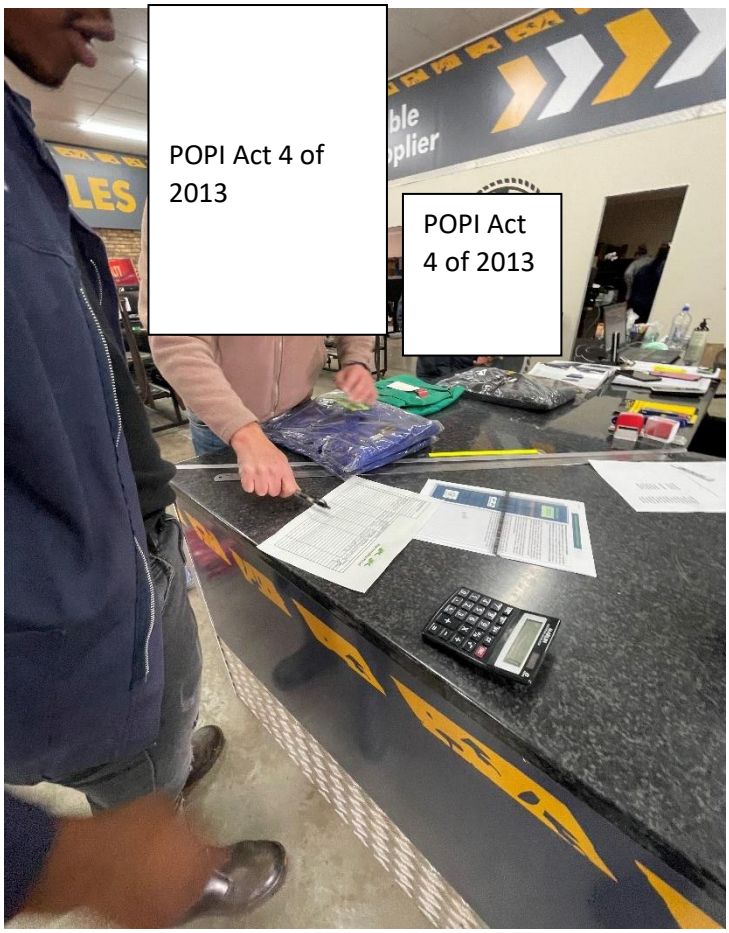
To track your shipment go to: www.postnet.co.za or call 0860 POSTNET (7678638)

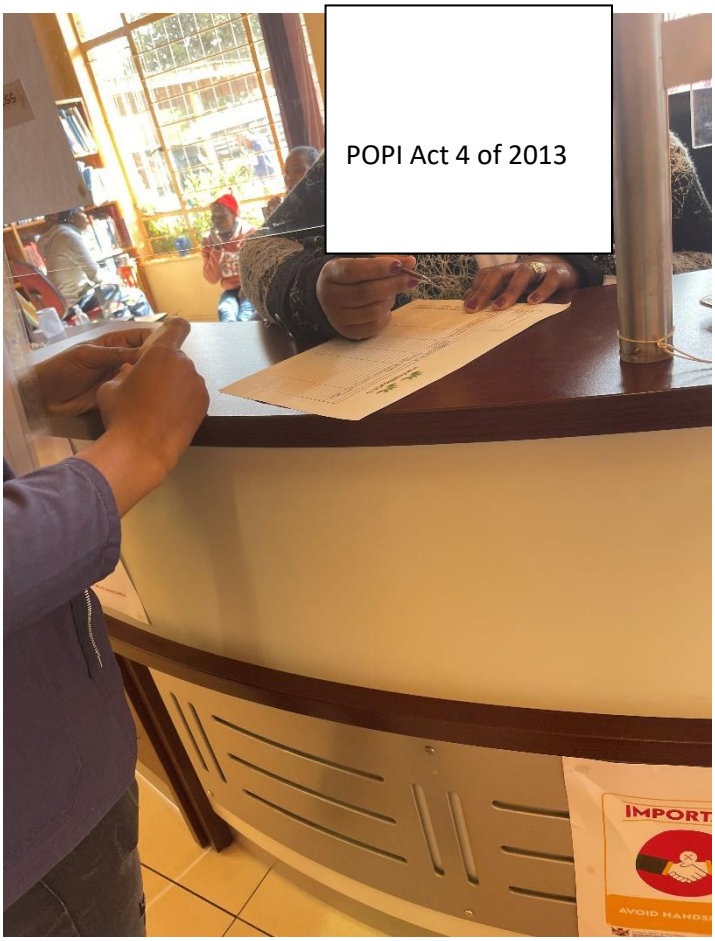
POSTNET STANDARD CONDITIONS OF CARRIAGE

To view the Standard Conditions of Carriage online, Please visit http://www.postnet.co.za/standard-conditions-of-carriage


POPI Act 4 of 2013


POPI Act 4 of 2013


POPI Act 4 of 2013
POPI Act 4 of 2013


POPI Act 4 of 2013

Appendix 6: Financial Provision

CALCULATION OF THE QUANTUM

Applicant: FAVOURED BY GRACE (PTY) LTD.
Evaluator: **Valentine Mhlanga**

DMRE Ref No.: MP 30/5/1/2/17283 PR
Date: August-20

No.	Description	Unit	A Quantity	B Master Rate	C Multiplication factor	D Weighting factor 1	E=A*B*C*D Amount (Rands)
1	Dismantling of processing plant and related structures (including overland conveyors and powerlines)	m3	0	19	1	1	0
2 (A)	Demolition of steel buildings and structures	m2	0	271	1	1	0
2(B)	Demolition of reinforced concrete buildings and structures	m2	0	400	1	1	0
3	Rehabilitation of access roads	m2	2,488.25	49	0.01	1	1219.2425
4 (A)	Demolition and rehabilitation of electrified railway lines	m	0	471	1	1	0
4 (A)	Demolition and rehabilitation of non-electrified railway lines	m	0	257	1	1	0
5	Demolition of housing and/or administration facilities	m2	0	542	1	1	0
6	Opencast rehabilitation including final voids and ramps	ha	0	284292	1	1	0
7	Sealing of shafts adits and inclines	m3	0	146	1	1	0
8 (A)	Rehabilitation of overburden and spoils	ha	0	189528	1	1	0
8 (B)	Rehabilitation of processing waste deposits and evaporation ponds (non-polluting potential)	ha	0	236054	1	1	0
8 (C)	Rehabilitation of processing waste deposits and evaporation ponds (polluting potential)	ha	0	685612	1	1	0
9	Rehabilitation of subsided areas	ha	0	158701	1	1	0
10	General surface rehabilitation	ha	0.9	150138	0.2	1	27024.84
11	River diversions	ha	0	150138	1	1	0
12	Fencing	m	0	171	1	1	0
13	Water management	ha	0	57087	1	1	0
14	2 to 3 years of maintenance and aftercare	ha	0	19980	1	1	0
15 (A)	Specialist study	Sum	0			1	0
15 (B)	Specialist study	Sum				1	0
					Sub Total 1		28244.0825

1	Preliminary and General	3389.2899	weighting factor 2: 1	3389.2899
2	Contingencies	2824.40825		2824.40825
			Subtotal 2	34457.78
	2-Aug-22		VAT (15%)	3623.34
			Grand Total	**38081**

Appendix 7: Site conditions


GPSMAP 64x
632
Note
Location
S 26.15587°
E 028.65255°
Elevation
1583m
Depth
S
0m
Map
Done
GARMIN
IN
OUT
FIND
PAGE
MARK
MENU
QUIT
ENTER


LCTT
9m160mm H4 E55
SABS
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