BASIC ASSESSMENT REPORT
And
ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT

PROSPECTING RIGHT APPLICATION BY ULIBO RESOURCES (PTY) LTD FOR COAL ON PORTION OF PORTION ON THE REMAINING EXTENT OF THE FARM ARENDSFONTEIN 464 JS, MAGISTERIAL DISTRICT OF MIDDLEBURG, MPUMALANGA PROVINCE.

PREPARED BY:

Singo Consulting (Pty) Ltd

Physical Address: Office 870

5 Balalaika Street

Tasbet park, Ext 2

Witbank

1040

Contact person: Dr Kenneth Singo

Tel No.: +27 13 692 0041

Fax No.: +27 86 514 4103

Cell No.: +27 72 081 6682

Email: admin@singoconsulting.co.za

PREPARED ON BEHALF OF:

ULIBO RESOURCES (Pty) Ltd
Reg Nr: 2013/099506/07

Physical Address: 32 Anna Scheeper Del Judor Del Judor Ext, Witbank Mpumalanga

Contact Person: Mr Musa Malikane

Tel No.: +27 72 2267 673

Email: malikanerm@gmail.com

Prepared for:

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

Department of Minerals and Resources

Regional office

Saveways Crescent Centre,

Mandela Drive,

Emalahleni,

1035

Mpumalanga

DMRE REF.: MP 30/5/1/1/2/ 17258PR

Table of Contents

LIST OF FIGURES

Tables

Appendices

Disclaimer

The opinions expressed in this Report have been based on the information sourced by Singo Consulting (Pty) Ltd through desktop studies, closer existing mine, and the local knowledge of land occupiers/ landowners. Opinions presented in this report apply to the site conditions and features as they existed at the time of Singo Consulting's investigations, and those reasonably foreseeable. These opinions do not necessarily apply to conditions and features that may arise after the date of this Report, about which Singo Consulting (Pty) Ltd had no prior knowledge nor had the opportunity to evaluate.

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

BASIC ASSESSMENT REPORT

And

ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT

SUBMITTED FOR ENVIRONMENTAL AUTHORIZATIONS IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 AND THE NATIONAL ENVIRONMENTAL MANAGEMENT WASTE ACT, 2008 IN RESPECT OF LISTED ACTIVITIES THAT HAVE BEEN TRIGGERED BY APPLICATIONS IN TERMS OF THE MINERAL AND PETROLEUM RESOURCES DEVELOPMENT ACT, 2002 (MPRDA) (AS AMENDED).

Name of Applicant:	**Ulibo Resources (Pty) Ltd**
Registration no (if any):	2013/099506/07
Telephone:	+27 72 2267 673
Fax no:	N/A
Contact Person:	Mr Musa Malikane
Email:	malikanerm@gmail.com
Physical address:	32 Anna Scheeper Del Judor Del Judor Ext, Witbank Mpumalanga
Postal address:	P O Box 1251 Ackerville Kwaguqa, Witbank Mpumalanga
File Reference Number:	DMRE REF:LP 30/5/1/1/2/17258 PR

IMPORTANT NOTICE

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

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 has taken into account any minimum requirements applicable or instructions or guidance provided by the competent authority to the submission of applications.

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.

i. 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 the 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 ASSSSMENT AND BASIC ASSESSMENT REPORT

1. INTRODUCTION AND EXECUTIVE SUMMARY

Singo Consulting (Pty) Ltd (Singo Consulting), on behalf of Ulibo Resources (Pty) Ltd., submitted an application for a Prospecting Right (PR) subject to Section 16 of the Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002) (MPRDA), and an application for an Environmental Authorisation (EA) in terms to Chapter 6 of GNR 982 enacted under the National Environmental Management Act (Act 107 of 1998) (NEMA) as amended for prospecting of Coal.
The proposed project will economically provide viable mineral deposits that exist in the application area. To undertake the proposed prospecting activities, Ulibo Resources (Pty) Ltd. requires a PR in terms of the MPRDA. The applicant must also obtain an EA in terms of the NEMA, which involves the submission of a Basic Assessment Report (BAR) and Environmental Management Programme report (EMPr).

Singo Consulting (Pty) Ltd appointed by Ulibo Resources (Pty) Ltd. as an independent company to manage the prospecting right application by doing Environmental Authorization (EA), conduct Environmental Impact Assessment (EIA), to do environmental assessment, consultation and conducting Environmental Assessment Report (BAR) and Environmental Management Programme Report (EMPR) to support the prospecting right application. The reports will be submitted to the Department of Mineral Resources and Energy (DMRE) for adjudication and will meet the NEMA's 2014 EIA Regulations (as amended in April 2017). Environmental Assessment Practitioners that form part of the project team; Dr Singo the principal EAP and Mrs Rudzani Radebe project manager.

The proposed prospecting right application covers the remaining extent of the farm Arendsfontein 464 JS, situated in the Magisterial District of Middleburg, in Mpumalanga Province (See Figure 1). The proposed exploring activity is aimed to assess the availability, depth and quality of the mineral mentioned above through non-invasive (desktop study) and invasive (core drilling) methods.

Prospecting desktop studies activities will include geophysical survey. The information that obtained during the desktop study will be included in a geological map to show the areas for invasive prospecting resource determination, then the invasive prospecting activity will include the following: core drilling, Rehabilitation of boreholes, drill rig and vehicle movement, water management, ablution facilities, domestic waste management and storage and handling of dangerous goods.

Following the invasive prospecting activities and laboratory analysis, data will be assessed in a pre-feasibility study to determine mining potential.

Referring to alternatives for this prospecting right application, the proposed area was chosen based on it geological features that indicated the availability of Coal. No alternativity activity to explore the availability of the mineral will be considered except geophysical survey and diamond core drilling, since diamond core drilling is well known as the method that reduces unnecessary disturbance of the natural environment.

The application area is situated within the Steve Tshwete Local Municipality in Mpumalanga Province approximately 32.09 km East of Kwaguga and 17 km Southeast of Middleburg. The following procedures has been undertaken to notify the local community about the project; Local newspaper publication, plugging of site notices in and around the proposed area inviting the community to register as interested and affected parties (I&APs) and notifying them about the project and the availability of draft Basic Assessment Report (DBAR), landowners were notified about the project (via email) and site assessment was done. During our site visit we observed that the project area dominated by cultivation of maize with some other parts of natural grass with some normal trees. Powerlines, cows, wetlands were observed, inside and within 500 m radius away from the proposed area, but all in all the project area is dominated by cultivation vegetation. From in-house Terrestrial biodiversity map the area is in a Heavily modified, moderately modified-old lands and other natural land. With regards to heavily modified land this may be since the area has been previously mined.

Stakeholders, landowners and other interested and affected parties were notified about the project through consultation, erection of site notices around the surrounding areas, through emails, and face to face engagements. A community meeting was held on the 16th of April with Ndzundza Sirudla traditional council Kwamalemani in Woestallen, Chief does not have the problem with the project and same applies with the community members. Community members asked to sit amongst themselves and discuss about the project and they will give their feedback through an email. All feedback that would be received from stakeholders, landowners and other interested and affected parties will be included in the final report before submission to the DMRE for adjudication.

Table 1: Baseline Environment

The baseline environment is summarised below per environmental aspect.

Aspects	Description
Geology	The application area generally underlain by the VRYHEID FORMATION. The facies types comprising the clastic sedimentary lithologies of the Vryheid Formation are predominantly conglomeratic granule stone, and coarse- to very coarse-grained arkosic sandstone, with lesser amounts of carbonaceous siltstone, bioturbated siltstone, minor carbonate-siderite beds, and coal. The majority of the economically extracted coal in South Africa occurs in rocks of the Vryheid Formation, which ranges in thickness in the MKB from less than 70.0 m to over 500.0 m. It is thickest to the south of the towns of Newcastle and Vryheid, where maximum subsidence took place (Du Toit, 1918; Cadle, 1975; Whateley, 1980a; Stavrakis, 1989; Cadle et al., 1982) and where the basin was the deepest. The soils derived from these Members are generally very shallow and are poor in nutrients, except for the soils derived from the lavas which are richer in nutrients and are generally deeper (SACS 1980).
Climate	The project area falls under the central Mpumalanga climatic zone characterized by warm, rainy summers and dry winters with sharp frosts. In Middelburg, the climate is warm and temperate. In winter, there is much less rainfall in Middelburg than in summer. The climate here is classified as Cwb by the Köppen-Geiger system. In Middelburg, the average annual temperature is 16.5 °C | 61.7 °F. The rainfall here is around 714 mm | 28.1 inch per year. Middelburg is in the southern hemisphere. Summer begins here at the end of January and ends in December. The months of summer are December, January, February, March.
Topography	The flow of water during rainy seasons flows from the area of high elevation to the area of low elevation. The topographical map that was created by our GIS Specialist in desktop study, and the contour interval is 5 m. The pattern of the contour lines says a lot about the topology of the area. In interpretation of the topology map, the land is gentle hence we see the contour lines being dispersed. The topography also influences

	groundwater vulnerability, as topography also influences run-off and infiltration rate by means of residence time. The flow of water during rainy seasons flows from the area of low elevation to the area of high elevation as it is indicated by contour lines. The topography of the project area is situated in a gentle topography as displayed by the contour lines on the topology map.
Hydrology	According to the hydrology map conducted by Singo Consulting the hydrology surrounding the proposed area is of vital importance. 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 existence. The watercourse that, was found in the proposed area, is a non-perennial river that flow from the south to the north direction of the proposed farm. non-perennial river: These are rivers that flow only during certain seasons. Non-perennial rivers are identified within and around the study area, flowing towards an area of low elevation situated in the southern to the northern direction of the study area.
Fauna	According to the screening tool report the area is characterised as the high-medium sensitive animal species within the area of study. During site assessment cows were found on the proposed area
Land Capability	The Land capability classification is one of several interpretation groups that was made for agricultural purposes. The land in question is arable. As with all the interpretation groups, the land capability classification starts with one soil-mapping unit, which is the building block of the system. The land capability is classified as grazing, grazing lands have the potential to provide food for people, secure clean water and wildlife habitat, and store carbon in the soil, which helps to mitigate climate change

a) CONTACT PERSON AND CORRESPONDENCE ADDRESS.

Table 2Details of the EAP who reviewed the report.

Name of practitioner	Mrs Rudzani Radebe
Designation	Project Manager (EAP)
Tel No	(013) 692 0041)
Cell No	+27 78 548 1244
Fax No	+27 86 515 4103
Email	rudzani@singoconsulting.co.za

Name of the Practitioner	Dr NK Singo
Designation	Principal EAP
Tel No	+27 78 2727 839
Cell No	+27 72 081 6682
Fax No	086 514 4103
Email	kenneth@singoconsulting.co.za

Table 3:Details of the EAP that prepared the report.

Name of the Practitioner	Ms Bongokuhle Sibiya
Designation	Environmental Technician
Tel No	013 692 0041
Cell No	068 540 6970
Fax No	086 514 4103
Email	bongokuhle@singoconsulting.co.za

Table 4 Details of the Public Participation Process (PPP) Officer

Name of practitioner	Ms Thilivhali Ndou
Designation	Public Participation Process Officer
Cell No	+27 63 050 6313
Email	Thilivhali.modester@gmail.com

DISCLAIMER

The opinion expressed in this, and associated reports are based on the information provided by [Ulibo Resources (Pty) Ldt] to Singo Consulting (Pty) Ltd ("Singo Consulting") and is specific to the scope of work agreed with Ulibo Resources (Pty) Ldt .

Singo Consulting acts as an advisor to the Ulibo Resources (Pty) Ldt and exercises all reasonable skill and care in the provision of its professional services in a manner consistent with the level of care and expertise exercised by members of the environmental profession.

Where site inspections, testing or fieldwork have taken place, the report is based on the information made available by Singo Consulting during the visit, visual observations and any subsequent discussions with regulatory authorities. The data and information used in this report were provided to Singo Consulting by Ulibo Resources (Pty) Ldt and referred to other outside sources (includes historical site investigation information and third-party expert research).

Singo Consulting (Pty) Ltd ("Singo Consulting") takes reasonable care and diligence when providing services and preparing documents, but it has been assumed that the information provided to Singo Consulting (Pty) Ltd ("Singo Consulting") is accurate.

These views do not generally refer to circumstances and features that may occur after the date of this study, which were not previously known to Singo Consulting (Pty) Ltd or had the opportunity to assess.

1.1 EAP expertise

Singo Consulting was established in 2008 as an independent consulting company focused on creating opportunities in the mining and environmental industry. Over time, Singo Consulting diversified its services, providing high-value geological, hydrological, environmental, cleaning and rehabilitation services to clients across a range of industries focused primarily on natural resources.

1.2 EAP's experience in carrying out Environmental Impact Assessments

Dr. Ndinannyi Kenneth Singo holds a PhD in Environmental Geology, an MSc in Environmental Management, and a BSc (Hons) Mining and Environmental Geology.

Dr Singo is a registered competent person with the South African Council of Natural Science Professions (SACNASP: Earth Science Reg. No: 400069/16), Geological Society of South Africa (GSSA), the Land Rehabilitation Society of Southern Africa (LaRSSA) and South African Affiliates of the International Association for Impact Assessment.

Dr Singo has knowledge of mine water and mine environmental management (acid mine drainage, heavy metal assessments and tailings management) in various commodities including coal, gold, magnesite, and base metals (Cu, Pb, Zn). He has extensive knowledge of defunct mining waste and wastewater impact assessments in communities in the vicinity of mines. Dr Singo has sound knowledge of risk assessment in terms of human and environmental health. He is experienced in the appraisal of potential constraints, and devising mitigation measures through remedial strategy development, feasibility, and validation.

During his PhD studies, Dr Singo learned how to operate in contaminated lands. His PhD largely focused on disused mines (gold, copper, and magnesite) ranging from Phase I and Phase II investigations to development of remedial strategies (i.e., Phase III). His PhD equipped him to understand waste classification, profiling and understanding of the implications associated with the management of waste, landfill disposal profiling and development of beneficiation strategies.

2. LOCATION OF THE ACTIVITY.

2.1 Location of the overall activity.

Table 5:Location of the activity.

Farm Name:	Arendsfontein 464 JS		
Application area (Ha)	Approximately 50 ha		
Magisterial district:	Magisterial District of Middleburg		
Distance and direction from nearest town	Town	Distance (km)	Direction
	Middleburg	17	Southeast
21-digit Surveyor General Code for each farm portion	T0JS00000000046400000		

Table 6:Farm portion and farm name together with the landowner details.

FARM NAME	FARM NUMBER	PORTION	AREA (Ha)	FARM OWNER	TITLE DEED	SG CODE
Arendsfontein	464 JS	RE	50	E D E FARMING (Pty) Ltd	T5878/2014	T0JS00000000046400000

2.2 Locality map

(Show nearest town, scale not smaller than 1:150000)

The proposed project area as seen in, 1and 2 below, is on the Portions of Portions of the Remaining Extent of the Farm Arendsfontein 464 JS situated Steve Tshwete Local Municipality which falls within the jurisdiction of the Magisterial District of Middleburg, in Mpumalanga province.
The proposed project area situated approximately 32.09 km East of Kwaguga and 17 km Southeast of Middleburg.

The project area may be reached from N11 through a gravel road. The existing unnamed gravel roads and farm roads provide access to the projected boreholes in the farm.

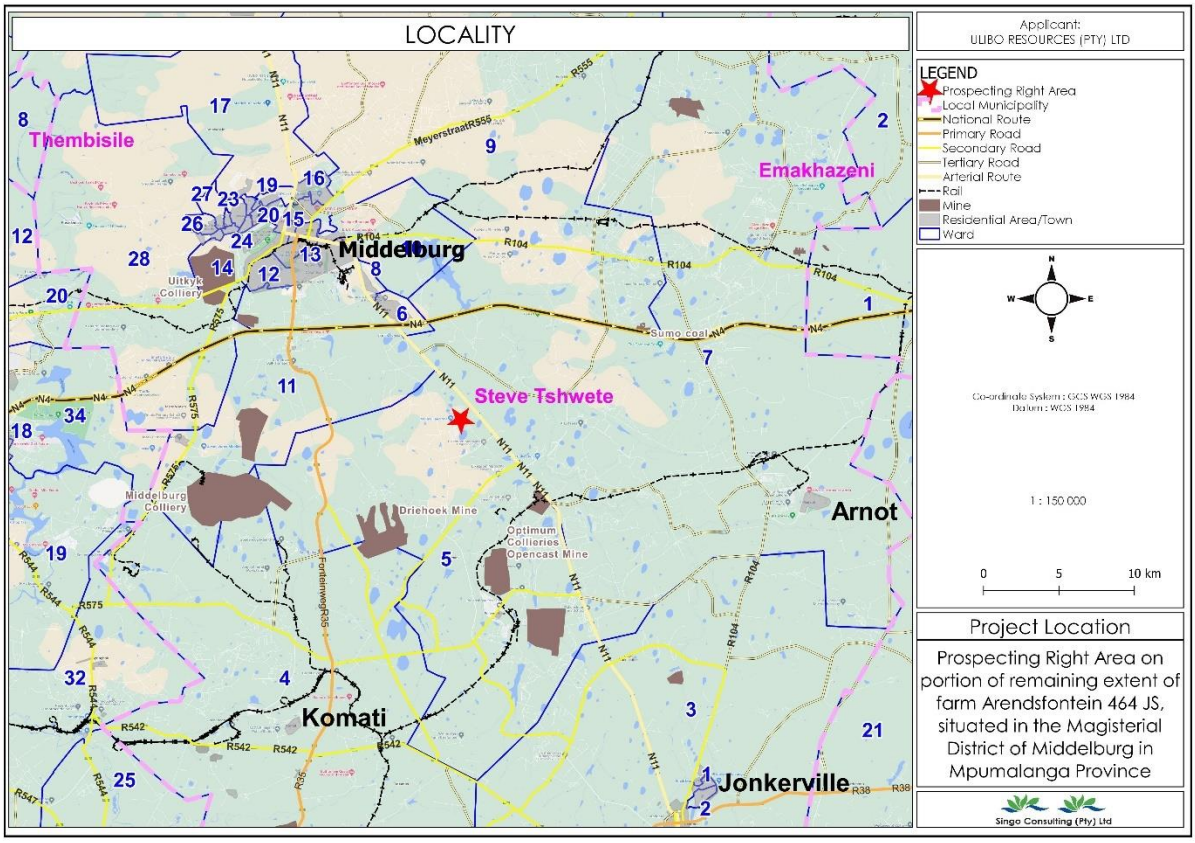


Figure 1:Google Earth showing the area of the proposed project (red star)

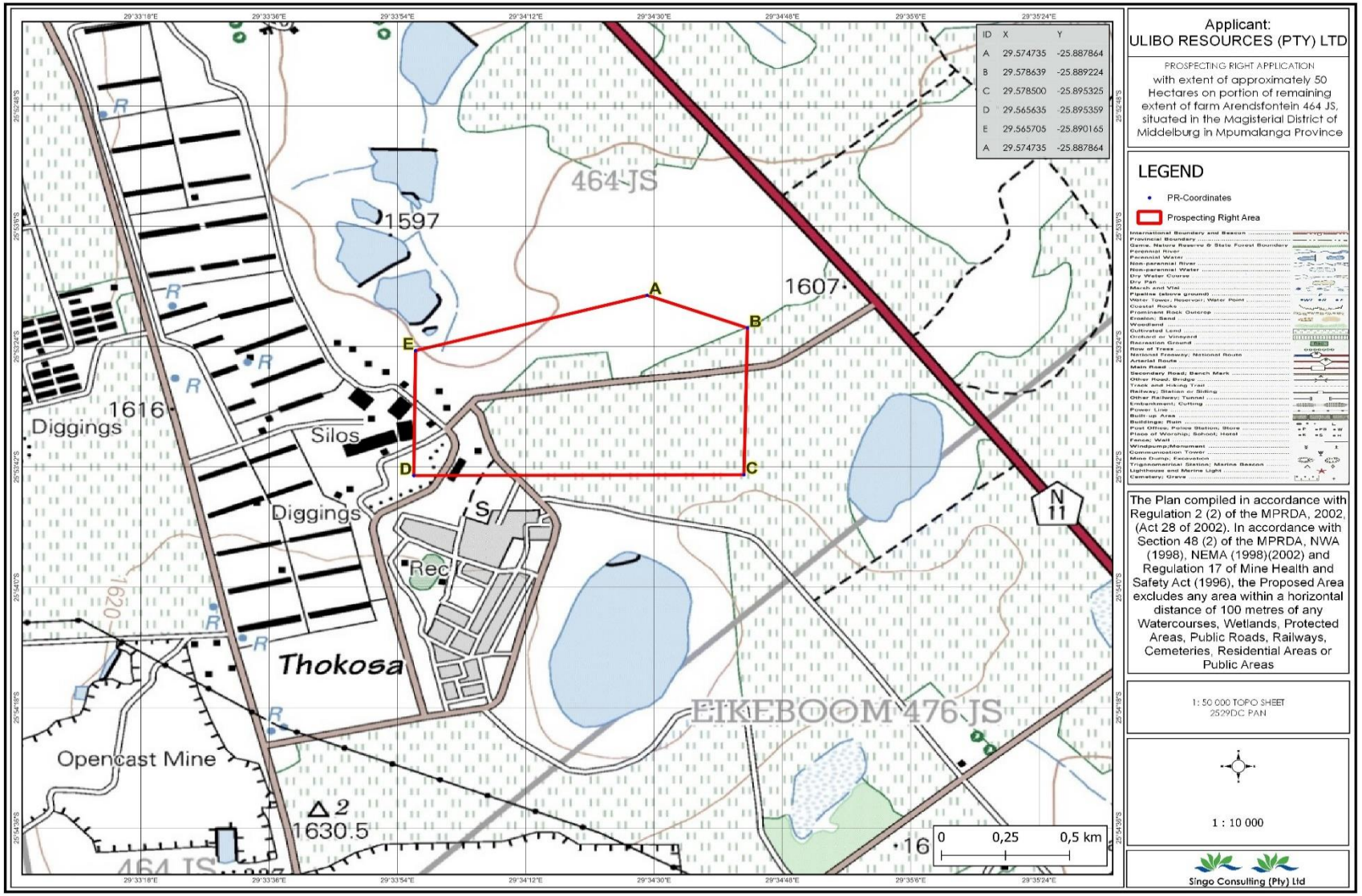


Figure 2: Regulation map showing locality of the project area.

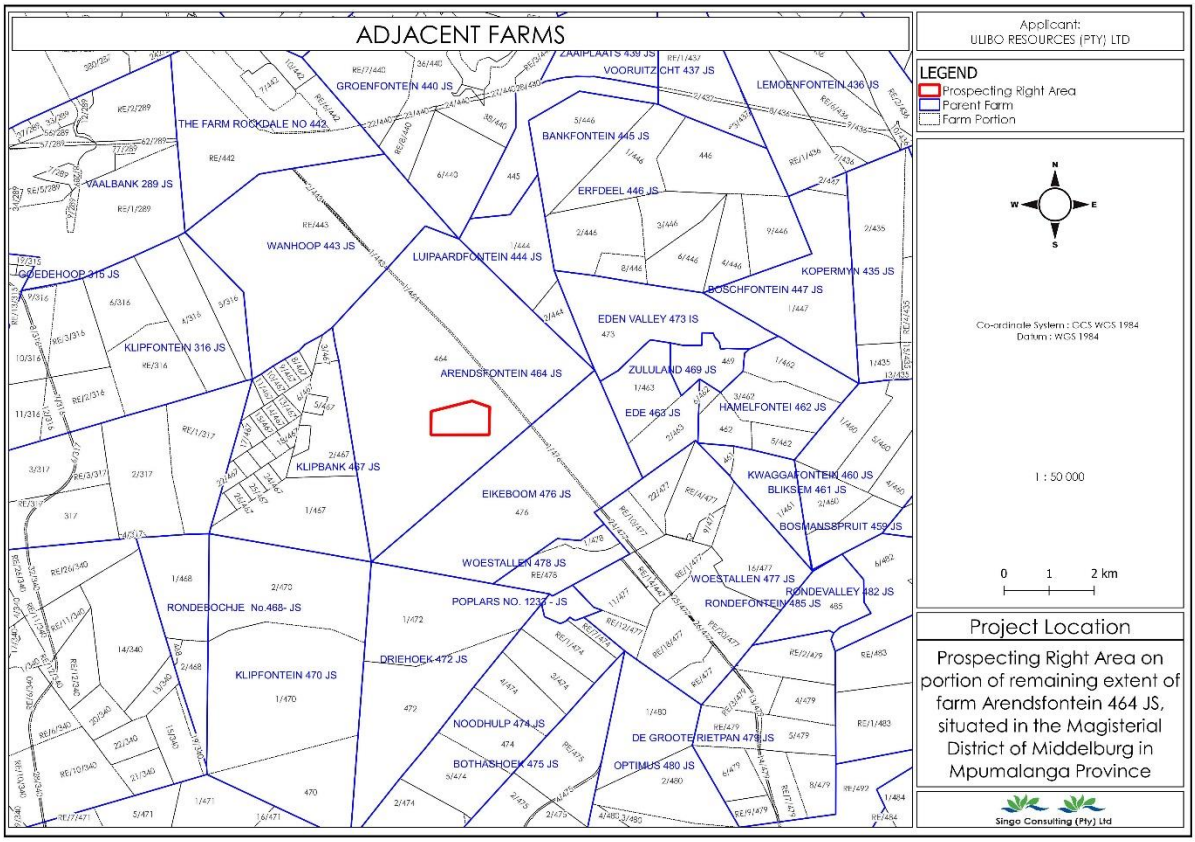


Figure 3:Adjacent farms.

3. 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.

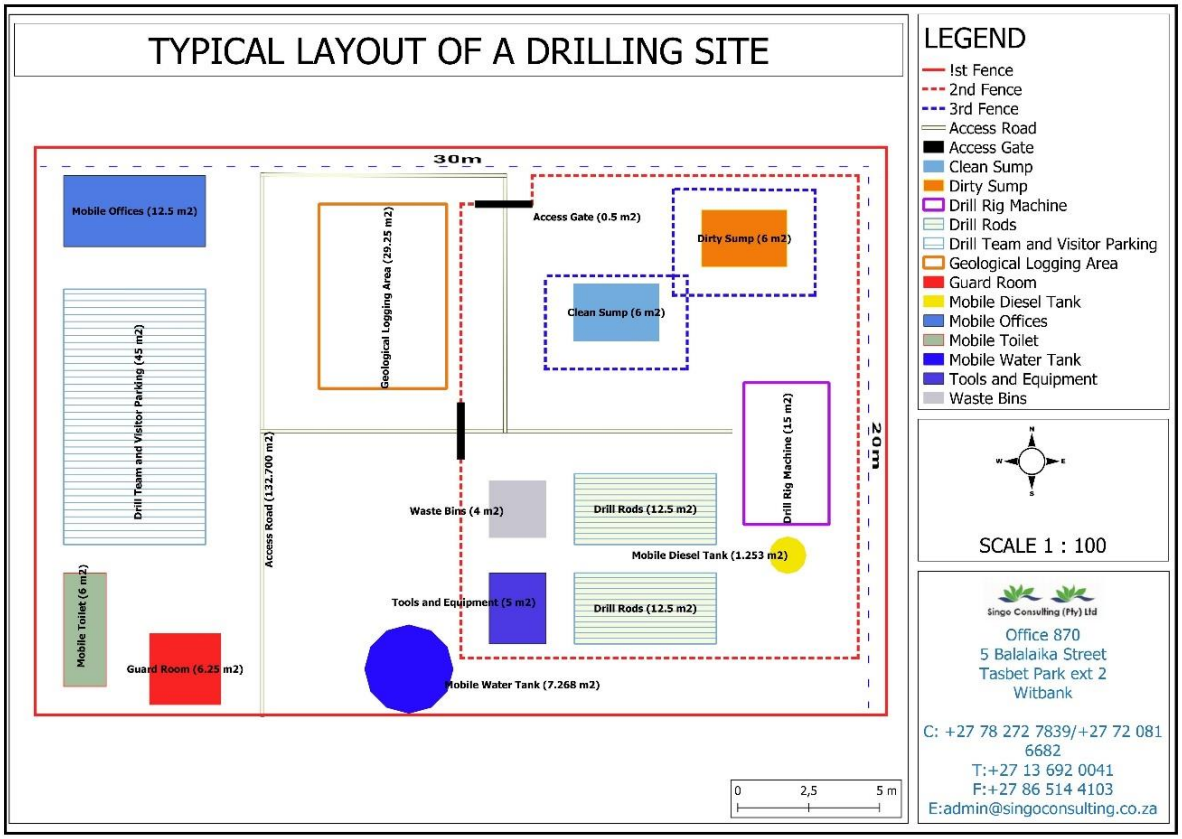


Figure 4:The drill site layout plan showing areas where specific activities will take place in the project area.

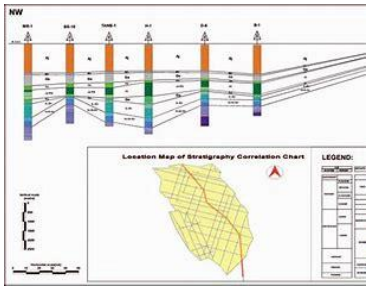
3.1 Listed and specified activities

Section 16 of the MPRDA requires, upon request of the Minister, that an EMPr be submitted, and that the applicant must notify and consult with Interested and Affected Parties (I&APs). Section 24 of the NEMA requires that activities, which may impact the environment, be authorised by a relevant authority before commencement. These activities are listed under Regulations Listing Notice 1 Government Notice (GN) 517, Listing Notice 2 GN 517 and Listing Notice GN 517 (dated 11 June 2021) of the NEMA.

Table 7: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.)	Aerial extent of the activity Ha or m^2	Listed activity Mark with an X where applicable/ affected	Applicable listing notice GN 517, 11 June 2021
Prospecting by means of diamond drilling 15 boreholes.	50 ha of the prospecting area (Disturbed area: 0.06 ha per hole x 15 boreholes = 0,9 ha)		GN 517, Listing Notice 1, Activity 20
Vegetation clearance for drilling (includes drill site). Invasive prospecting by means of diamond drilling 15 boreholes. The holes will be drilled to an average depth 110 m. The demarcated working area (total area to be disturbed) per site is 30 m x 20 m = 600 m^2 (0.06 ha). Then 600 m^2 x 15 boreholes =9 000 m^2 The total area to be disturbed is 9 000 m^2 /10 000 = 0,9 ha	0,9 ha (total disturbed area) of 50 ha (extent of application area)		Not Listed
Mobile office	12.5 m^2		Not Listed
Mobile toilet	6 m^2		Not listed
Drill team and visitor team parking	45 m^2		Not listed
Access road	132.7 m^2		Not listed
Guard room	6.25 m^2		Not listed
Access gate	0.5 m^2		
Geological logging area	29.25 m^2		Not listed
Waste bins and tools	9 m^2		Not Listed
Drill machine	15 m^2		Not listed
Drill rods	25 m^2		Not listed
Clean sump	6 m^2		Not listed
Dirty sump	6 m^2		Not listed
Water tank	7.268 m^2		Not listed

Table 8:Drilling method, depth, and number of boreholes to be drilled.

Drilling Method	Depth	No. of Boreholes
Core Diamond Drilling	>110m	15
		
Percussion drilling	N/A	N/A

3.2 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)

The following section presents a detailed description of all the activities associated with the proposed prospecting application. Due to the nature of the prospecting works programme (PWP) and the fact that the specific prospecting activities depend on the preceding phase, assumptions are presented where required. These assumptions are based on similar projects undertaken by the applicant.

3.2.1 Access Road.

The prospecting right area will be accessed through the N11 that joins the gravel road to the farm on the East, and farm roads provide access to the projected boreholes in the fam portion of the remaining extent, which can give all project personnel easy access to the drill site. As such, no new access roads will be constructed for the current proposed activity and for activities taking place in the proposed since drilling site will be accessed through the existing access road. However, should the need arise once the prospecting right has been granted, the applicant must conduct a detailed technical assessment of the proposed site by negotiating access with the land and surface rights owners, as well as the lawful occupiers of the farm. An agreement on access to the project area will be reached and agreed with the landowner.

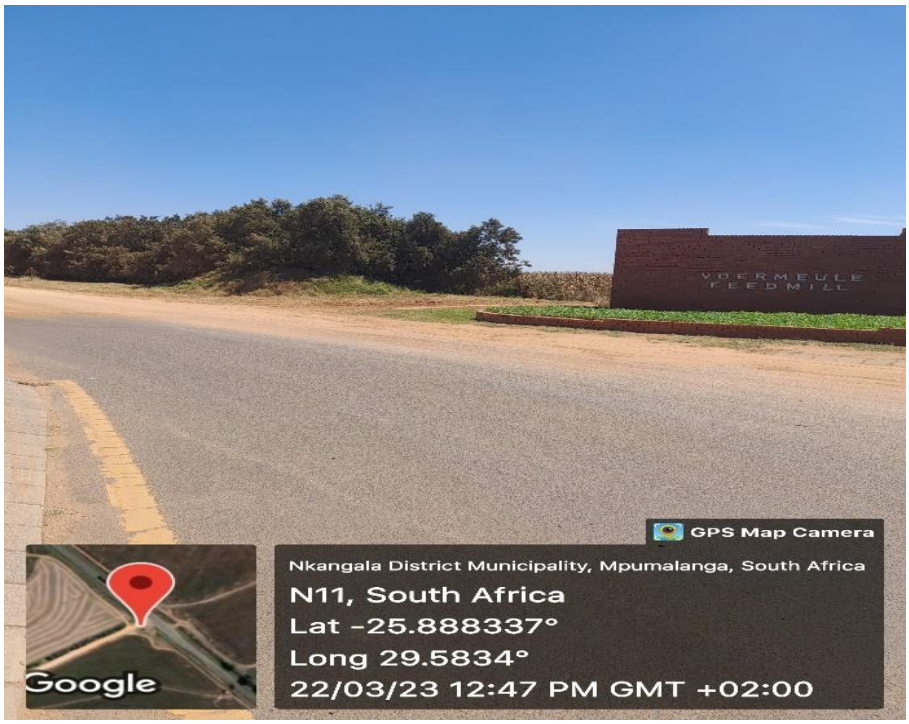


Figure 5:Access Road from N11 to the proposed project site

3.2.2 Ablution facilities.

Due to the nature of prospecting, no permanent ablutions will be implemented on site. On-site ablution facilities will include the installation of drum/tank-type portable toilets (see Figure 5). Since the prospecting activity will be of limited duration, portable toilets are preferred.

Figure 6: An image showing a typical example of mobile toilets.

3.2.3 Temporary Office.

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

Figure 7: Typical example of a gazebo/mobile tent

3.2.4 Accommodation

Staff will be accommodated in nearby villages (not on site) and transported to and from the site daily. Night security staff will be employed once equipment has been established on site.

3.2.5 Blasting

There will be drilling, but no blasting.

3.2.6 Storage of dangerous goods

During drilling, limited quantities of diesel fuel, oil and lubricants will be stored on site. A maximum amount of 60 m3 diesel will be stored in above-ground diesel storage tanks.

Figure 8: Example of a dangerous goods storage/ container

3.2.7 Temporary Fences.

Temporary Fences will be erected on the boundaries of prospecting target areas prior to commencement of works at the target footprint areas to prevent unauthorised entry and animals. Fences are to always remain maintained, and gates are not to be left open at any time. Signs indicating the risks involved in unauthorised entry must be displayed at each entrance.

Figure 9: Example of temporary fence

3.2.8 Water supply

The prospecting activity will involve drilling of boreholes preferred by the applicant. This signifies that no water resource will be used for the purpose of drilling purpose however, water requirements relate to the potable water supply for employees and workers. A temporary 200 L on-site vertical water storage tank (for drinking water and general use by persons) will be provided at the drill site.

Figure 10: Example of a water storage tank.

3.3 Prospecting method(s) to be implemented.

3.3.1 Planned non-invasive activities.

3.3.1.1 Desktop study

Initial phase 1 work includes collecting and interpreting available data (extensive exploration was conducted in the proposed project area) and compiling a Geographic Information Systems (GIS) database. Data to be collected include aerial photos, orthophotos, aeromagnetic data, topo-cadastral maps, geological maps, historic exploration programmes and other published literature and maps. The study will aid in compiling a preliminary geological model of the area to be used in drillhole planning, geological mapping and sighting.

Figure 11: Desktop study example

3.3.1.2 Geological mapping

Figure 12: Geological mapping example.

3.3.1.3 Sample analysis

Drill core will be sampled where a mineralized section is intersected. The core will be split into two halves, with one half of the core taken for assay purposes and the other half being retained. Each sample will be measured and weighed, and the sample lengths will be recorded before dispatch for assays at a South African National Accreditation System (SANAS) accredited laboratory.

3.3.1.4 Preliminary economic assessment

A preliminary economic assessment will be conducted to determine project viability. At this stage, the mineralization, regardless of quantity and quality, is considered a mineral resource. This study is based on industry standards rather than detailed site-specific data.

3.3.2 Pre-feasibility study

The pre-feasibility and feasibility studies will be more detailed. By the time a decision is made to proceed with a pre-feasibility study, a preliminary mineral resource report would have been finalised and an ore body model demonstrating its shape, tonnes, and grade will be available. A resource cannot be converted to a reserve unless backed by (at least) a pre-feasibility study, since it will show with more certainty whether the project is viable. At this point, the mineral resource, or a portion thereof, becomes a mineral reserve.

3.3.2.1 Description of planned invasive activities.

Diamond drilling will be used to prospect for mineralisation in the proposed project area. Geological, structural and geotechnical logging will be performed by experienced geologists to ensure appropriate and sufficient mineral resources estimation, mining and metallurgical studies. Fifteen will be drilled during prospecting. The results of Phases 1 and 2 will assist in determining ideal borehole location. Only ten boreholes will be drilled during Phase 3. After Phase 3, results will be used to design a systematic drilling programme aimed at delineating the mineral resources. The final number of boreholes will depend on the results of Phase 3 drilling. A further five boreholes are planned for Phase 5 drilling.

Figure 13: Example of drilling machinery

3.3.3.2 Description of pre-feasibility studies

Pre-feasibility studies are detailed studies that use metrics and data specific to the project in question (not standard industry methods). These studies usually include a range of options for the technical and economic aspects of a project and are used to justify continued exploration, complete the required project or attracting a joint venture partner. The overriding aim of a pre-feasibility study is to select the preferred option (base case scenario) for project development. This base case scenario is then developed in enough detail to underpin decisions to devote additional funds required to move the project through subsequent stages of development and to a final feasibility study.

3.3.2.3 Prospecting phases to be implemented

See table 7 for the intended prospecting activities to be conducted using the methods

Table 9: See the table below for a description of the of the phases.

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 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 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 25-36	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 quality modelling	Exploration Geologist	Month 34-60	Contour maps Reserve breakdown	Month 34-60	Exploration Geologist /Modeler

4. POLICY AND LEGISLATIVE CONTEXT

Table 10: Policy and Legislatives

Applicable legislation and guidelines used to compile the report	Reference was applied	Development's compliance with and response to the policy and legislative context
Specific Environmental Management Acts (SEMAs)		
National legislation		
NEMA	This BAR and EMPr	An application for EA was submitted to Mpumalanga DMRE, and the application was accepted.
National Water Act (NWA), 1998	No Water Use License has been applied for this prospecting project.	No water use licence will be required for this project. Water require will be brought to site using portable tanks.
MPRDA	Application for prospecting as per Section 16	The applicant submitted a PR application to the DMRE.
Municipal plans		
Nkangala District Municipality strategic development framework (SDF)	Alternatives	The applicant acknowledges the need to maximise economic benefit from mining, industrial, business, agricultural and tourism development in the area and promote a climate for economic development in line with Nkangala SDF
Municipality by-laws: Waste Management by-law Act 59 of 2008, Air Quality Management By-law Act 39 of 2004, Noise control by-law, Spatial Planning and Land Use Management act no 16 of 2013 (SPLUMA)	Environmental Management measures awareness plan	Best practice guidelines will be followed for any by-law's management and the development of the mine environmental and other legislative management.
Conservation of Agricultural Resources	Alternatives	The conservation of soil, water resources and vegetation are promoted. Management plans to

Act, 1983 (Act No. 43 of 1983) (CARA)		eradicate weeds and invader plants must be established to benefit the integrity of indigenous life. The prospecting activity ensures that environmental disturbance is minimal, and rehabilitation is done.

5. NEED AND DESIRABILITY.

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

Mining in South Africa also directly contributed to the establishment of the Johannesburg Stock Exchange in the late 19th century, and today it still accounts for a large portion of its market capitalization. From this, mining in South Africa has shaped the country politically, culturally, and economically and that the South African mining sector has provided the critical mass for several industries that are either suppliers to the mining industry, or users of its products. These include, but are not limited to, energy, financial services, water and engineering services, and specialist seismic geological and metallurgical services. The proposed coal prospecting right will not only contribute directly to the South African economy but will also contribute to the development and growth of other industries supporting the mining sector.

The proposed prospecting right in search for coal resources that is prior to mining project, will contribute to favourable economic impacts on both a local, regional, and national scale. This can result in numerous job creation and skills development opportunities and provide an economic injection in the region. Although prospecting activities are not labour intensive, few 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 Steve Tshwete local municipality intends to start mining after the prospecting right application has been

granted. 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.

Table 11: Need for and desirability of the proposed activities.

Part 1: 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. Mining is an integral part of its rationale to make use of the abundant natural resources in the area to create strong, resilient, and prosperous municipality.
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?	PR is an initial stage for mining therefore there will be no town expansion or any sort of development.
3	Does the community/area need the activity and the associated land use concerned? This refers to the strategic as well as local level.	Steve Tshwete local Municipality have high unemployment. Mining needs many different skills and the local community members need to be employed before considering nearby towns. It is unfortunate that this application is for prospecting; nothing economically can be gained from it, but it is an important stage for determining the possibility of having a mine.
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?	Yes. All infrastructure for services and capacity is sufficient for the existing and proposed PR. The proposed project will be using water through the municipal water services. The road networks are fully intact and the project will not have a major impact on road congestion. 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	The development is not provided for in the infrastructure planning of the municipality as it is a small development of local importance. 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

	opportunity cost)?	proposed project will use mobile structures.
6	Is the project part of a national programme to address an issue of national concern or importance?	Mining production in South Africa rose 0.1% year-on-year in January of 2022, after a downwardly revised 15% fall in the previous month and largely missing market estimates of a 3.45% growth. Higher output levels from manganese ore (19.6%), gold (7%) and diamonds (16.3%) were offset by a decline in iron ore (-13.4%). On a seasonally adjusted monthly basis, mining production increased 5.4%, following an upwardly revised 5.5% decline in the prior month (Source: Statistics South Africa). The current war between Russian and Ukraine has benefited South African's mining sector. There is a possibility of high profit making since the operations in these countries are not running.
Part 2: Desirability		
7	Is the development the best practicable environmental option for this land/site?	Yes, it is. The proposed prospecting project has little impact on the environment, and it involves drilling of just 15 drill holes. The prospecting activities will not disturb any activities that might take place on the proposed project area.
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?	Partly. The project will not compromise the plans of the municipality because the total area of prospecting is 0.9 ha but the land use will be affected for a short period of time.
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 and rehabilitation plan will be in line with the local municipalities.
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).	Yes, the location for the proposed project is for farming, however this area is located far from the majority of the population. The prospecting activity will be at a small scale, therefore even the current land-use will not be affected much.
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)?	An application was made on the SAHRA in order to check for any heritage/cultural sensitivity of the area. The screening report was also conducted to check for any environmental sensitivity of the area.
12	How will the development impact on	The proposed prospecting project will have very little

	people's health and well-being? (E.g. In terms of noise, odours, visual character and sense of place, etc.)?	impact on the people. The project area is far away from the communities, with very few houses. Borehole planning considered the location of these houses. Possible well-being and mitigation impacts: Visual: Low Dust: Low-Medium Noise: Medium Sense of place: Medium
13	Will the proposed activity or the land use associated with the activity being applied for, result in unacceptable opportunity costs?	No. The mining industry in South Africa 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.
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.

6. ALTERNATIVES

6.1 Motivation for the overall preferred site, activities, and technology alternative.

The proposed site was selected based on extensive research and following information from previous prospecting activities in the area. The proposed prospecting methods and technologies have been chosen based on the known successful prospecting processes in the area. The prospecting activities proposed in the PWP depend on the preceding phase, therefore no alternatives are indicated, but rather a phased approach of trusted prospecting techniques.

7. DETAILS OF THE DEVELOPMENT FOOTPRINT ALTERNATIVES CONSIDERED.

With reference to the site plan provided as Appendix 2 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.

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

There is no preferred site alternative for the proposed prospecting project because the minerals the applicant proposes to prospect are in the preferred site.

7.2 The type of activity to be undertaken.

The nature of prospecting activities has two stages. It entails invasive activities and non-invasive activities. Non-invasive activities do not have any form of impact on the receiving environment since they do not involve any implementation of physical activity, however the invasive activities have impacts and land disturbance. To manage the impacts better, 100m buffers will be implemented to ensure protection of existing water resources, infrastructures, and ecosystems on site. This technique was chosen based on the long-term success of the selected drilling method and prospecting process.

The exploration records of all previous work in the area will be re-examined, and the following studies will be carried out:

- Literature review
- Detailed aerial photograph and satellite image interpretation.
- Regional airborne geophysics with main emphasis on magnetic and gravity
- Regional soil geochemistry interpretation
- Geological mapping will also be carried out.

These records will need to be captured into a GIS format for geological modelling and exploration scheduling analysis. Should mineralisation be encountered then further drilling will be undertaken. A suitable level of feasibility study (technical and economic evaluation) will also be undertaken if the results of the phase justify it.

7.3 The design or layout of the activity

Since exploration is temporary, no permanent structures will be constructed. Negotiations and agreements will be made with the landowners to use any existing infrastructure like access roads for the explorers.

7.4 The technology to be used in the activity.

The diamond drilling technique is the only major method used in exploring for deposits of this type and also for resource definition and evaluation. The technology to be used cannot be replaced by any other methods thus these are the preferred activities such as Air Flush.

7.5 The operational aspects of the activity

The principal prospecting activity will be diamond core drilling. One drill rig will be used to drill, namely NQ – 60 mm diameter. Since this core size provides sufficient sample mass for laboratory analysis, no other methods have been considered.

7.6 The option of not implementing the activity.

The no-go alternative is the option of not undertaking prospecting activities on the project site and leaving the site in its current state. Drilling is needed to investigate the potential and feasibility of minerals on site. There is no potential for future investment in a mine without confirming the mineral resource through drilling. Should the PR not be granted, the minerals being applied for will not benefit the local community through, e.g., job creation.

The mining sector is the backbone of South Africa's economy. Nkangala District Municipality (SMD)is a main contributor to the provincial gross domestic product (GDP) and, as such, not carrying out the prospecting activities would prevent future mining prospects and reduce GDP contribution. The jobs that would have been created during prospecting will also be missed, increasing the number of people dependant on social grants.

The state of the natural environment will remain the same, and there will be no:

- Geological and soil disturbance
- Waste generation
- Compaction of pathways affecting the growth pattern of grasses and movement of micro animals
- Disturbance of wildlife in the farm and surrounding farms

8. 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. NB 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)

This section of the report provides an overview of the tasks to be undertaken for the PPP. The PPP was conducted in terms of Chapter 6 of the NEMA and included the following:

- Identification and recording of key I&APs and other stakeholders on the stakeholder database.
- Placement of site notices around the farm, and other accessible public areas.
- Publication of a newspaper advert, in the local newspaper.
- Formal notification of the application to key I&APs and other stakeholders via distribution of a notification letter and the background

8.1 Identification of key interested and Affected Parties.

Public participation is the involvement of all parties who are potentially interested and/or affected by the proposed development. The principal objective of public participation is to inform decision-making.

Landowners was identified through Windeed search. Additional relevant organisations were identified and notified of the application. This includes municipal and state departments with jurisdiction in the project area. I&APs representing the following sectors of society were identified and notified: Landowners, local municipalities, government departments and the community.

8.2 Formal notification if the application to key Interested and Affected Parties.

The project was announced as follows:

Newspaper advertisement	The project was announced (in English) in *Middleburg Observer* on the 17th of March 2023. The newspaper notified all I&APs of the proposed project and invited them to register as project stakeholders.
Written notification	A Background Information Document (BID) notifying I&APs and other key stakeholders of the project was published on 20th of March 2022
Site notice	To inform surroundings, locate landowners and adjacent landowners of the proposed development , site notices were erected on and close to site on the 22nd March 2023 and 15th April 203.

8 | Middelburg Observer > Community

Friday 17 March 2023

MY BEURT MY TURN

Tobie van den Bergh

Robert Brozin is op Middelburg gebore.

Hy het hier grootgeword, geleer gholf speel en seunsgoed gedoen.

Sy ouers, Max en Vera Sheila (Collis), was bekende sakemense.

Die jong Robert is later saam met hulle Johannesburg toe.

Hy was die een wat gehou het van pret, "fun", soos hy sê.

Van "kakmaak".

Toe besluit hy om die wêreld te verander, hoender vir hoender.

Hy kan tereg beskou word as die "vader" van Nando's, daai hoender met die lekker brand.

Robert is net 'n doodgewone mense-mens, met 'n briljante sakebrein.

Toe hy Donderdagaand opstap om sy toespraak af te steek, by die Middelburg Kamer van Koophandel se jaarlikse banket, het niemand gesê "maak vas julle sitplekgordels nie".

Want dit was nie nodig nie.

Robbie het die vol saal by 4SAI vasgenael aan hulle sitplekke gehou.

Sommer so uit die vuis het hy die gaste op 'n reis gevat, 'n lewensreis van menswees, sake, geld en gees.

Hy moes 'n paar keer sluk toe hy praat oor sy oupa en pa se "gees", hulle nalatenskap wat hy weer in Middelburg beleef.

Sy liefde vir Middelburg.

Sy geloof in Middelburg.

Sy vertroue in die dorp se toekoms.

Hoe hy steeds daardie Middelburg gees in 4SAI se saal beleef.

Die gaste was nie ou verstokte omies nie, hulle was entoesiastiese en kreatiewe jong mense.

Wat bereid is om die Nando's waardes van trots, passie, durf, integriteit en familie voort te sit.

Wat gees het.

Wat die dorp gaan verander.

Nie hoender vir hoender nie.

Deur hulle Middelburg gees.

Observer 1903 - 2023

Middelburg Observer August 23, 1907

Imperial Hotel

This splendidly conducted hotel is the most centrally situated, being near the Post, Telegraph, Government Offices, Market, Town Hall, and Banks, and specially adapted for businessmen.

Large balcony overlooking the beautiful Government and Market Squares. Thoroughly renovated and refurnished. A long-standing reputation as the premier hotel of Middelburg.

The hotel bus meets all passenger trains.

Hot and cold baths.

Private and public bars.

High-class hairdressing saloon.

Resident of the week:

Que Naidoo, the outgoing president of the Middelburg Chamber of Commerce and Industry, for the passionate manner in which she has served and fought for Middelburg and its community during the last two years. Ms Naidoo has set many plans in place to endorse the town's economy and Middelburg stands to greatly benefit from her initiatives for many years to come. Ms Naidoo, you are welcome to come and collect your Hobo's Cafe voucher to the value of R250 from the *Middelburg Observer*'s editorial office.

Thorn of the week:

Thorn of the week: The ongoing Nehawu strike, which has prevented many patients from receiving or seeking urgent and life-saving treatment in their pursuit of more money. So many incidents have been aired of patients being abandoned in their wards and in one instance, a baby lost its life due to the intimidation from healthcare workers who do want to work by those who do not. The fact that these incidents did not happen on local soil makes no difference. The power that comes from the freedom to strike or protest was always intended to empower and free people. The abuse of that power, in current times, however, has reached a point where it has robbed ordinary citizens of their most basic rights. It is ok to want the sun to shine over you, but why deny others the same?

Jehovah se Getuies byeen

Die publiek word uitgenooi om die kringbyeenkoms van Jehovah se Getuies by te woon wat Saterdag aangebied word by die Pienaardam Ontspanningsoord se Hartlandsaal.

Die program begin om 09:00 tot 16:00 met 'n etensuur tussen 12:00 en 13:00. Ligte verversings sal beskikbaar wees teen bekostigbare pryse.

Toegang is gratis en geen kollektes sal geneem word nie.

Die kringbyeenkoms se tema is "Jehovah se verenigde familie".

Please municipality, sort the homeless

Former town councillor and community leader Farouk Suliman:

Bravo to the City of Cape Town for taking a bold step to approach the High Court of the Western Cape for the removal of the homeless people from the streets.

The court has ruled in favour of the council.

Steve Tshwete Local Municipality, you can also act swiftly, within the law, to empower our law enforcement agencies to act accordingly.

The council should designate a safe and suitable, well-fenced area for the homeless, with adequate amenities, like water and sanitation.

There's no need for local authorities to go to court if provisions are made available to alleviate this dire and unhealthy situation.

To accommodate the homeless will assist the business owners in the CBD tremendously.

If the council acts responsibly to stop this scourge of begging and loitering, the town may once again become a flagship for South African local authorities, like Cape Town.

Mr Farouk Suliman.

Please, we urge you to bring Middelburg back to its former glory.

Save these dates

As jy jou geselligheid of sportgeleentheid wil adverteer, bel Daleen Naude by 013 243 1434 of stuur 'n e-pos na **daleen@mobserver.co.za**.

Elke Vrydag

•Die Hospicevereniging bak pannekoek by hul kantoor in Kogelstraat. R7 per pannekoek. Elke tweede Vrydag ook pannekoek met melktertvulsel (R15). Bestellings by sr. Judy Toüa by 083 231 5831 of bel die kantoor by 013 243 6713.

Elke Saterdag

•Mannaprojek Blikskud by Farm Inn. Bev Neyt 082 338 5129.

18 Maart

•Gholfdag by Arnot Gholfklub. Paul Swart 082 3355 332.

22 Maart

•Pret nagwedloop van 4.9km ten bate van die Middelburg Hospicevereniging. Wegspring vanaf Laerskool Staatspresident C.R. Swart. Navrae by 013 243 5713.

1 April

•Oppi Stasie Vlooimark by Middelburg Stasie. Stalletjies Liezl 084 990 5944.

PADKOS QUIET TIME

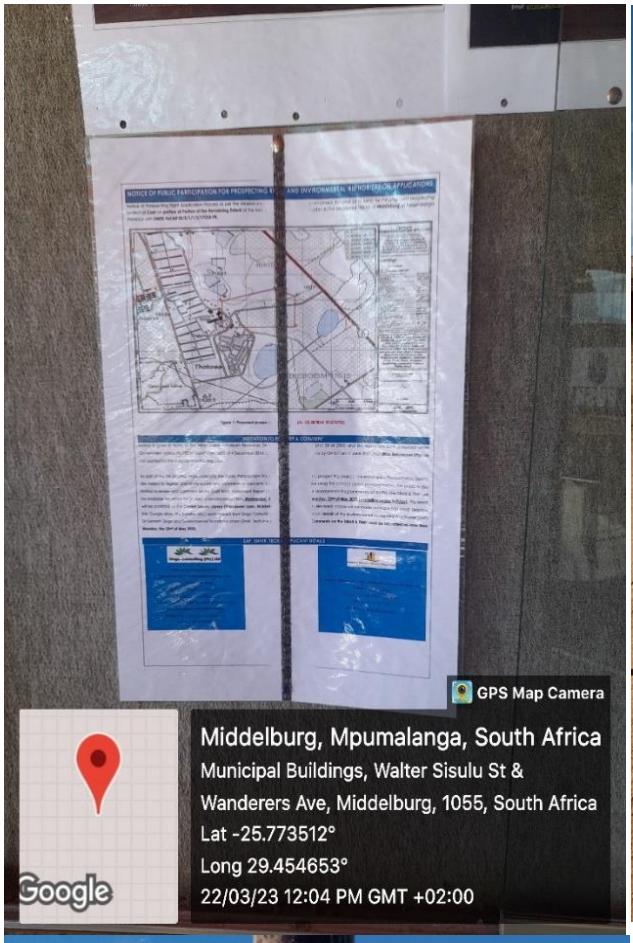
When last did you stop to smell the roses? One of my friends, who passed away during Covid-19, frequently asked me this question. We live in a hectic world. The pace of life for most of us is very fast. Today I want to urge you: Keep the main thing, the main thing!

Spend time with your loved ones. Treasure the moments with the people you love. Focus on making memories and live life to the full. When last did you honour the people that influence your life? We tend to bring flowers to a funeral and say beautiful words on that day but do the people that you love and honour know how you feel about them?

May we start a culture of honour. May we take time to stop and smell the roses. Let the people you love know how you feel about them. Treasure them and honour them. Our greatest treasure in this world is God and the people we love.

Journey with Jesus.

Figure 14:Newspaper advertisement on 17th of March 2023


GPS Map Camera
Middelburg, Mpumalanga, South Africa
Municipal Buildings, Walter Sisulu St &
Wanderers Ave, Middelburg, 1055, South Africa
Lat -25.773512°
Long 29.454653°
22/03/23 12:04 PM GMT +02:00
Google


NDZUNDZA SIRUDLA
TRADITIONAL COUNCIL
KWAMALEMANI

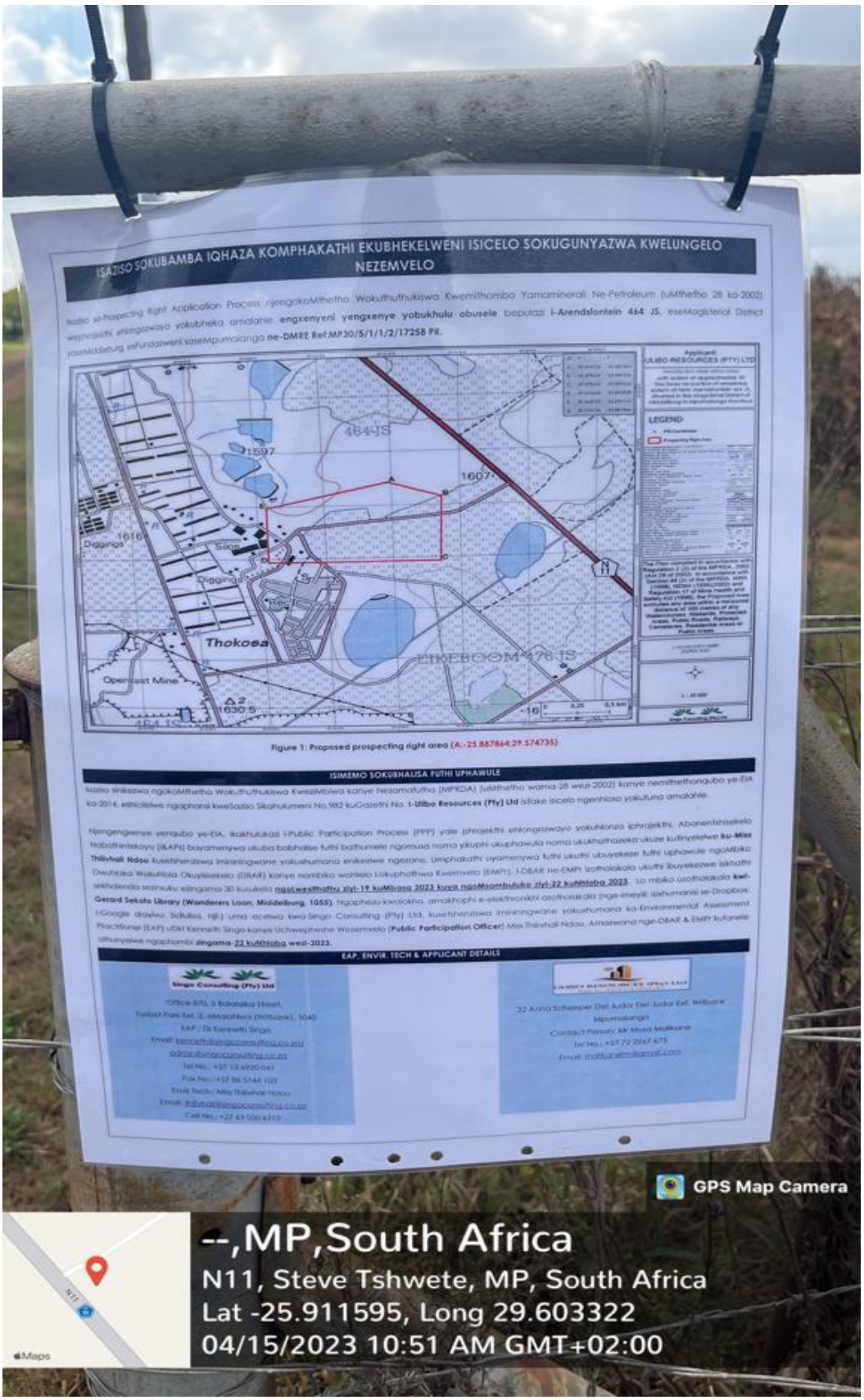

ISAZISO SOKUBAMBA IQHAZA KOMPHAKATHI EKUBHEKELWENI ISICELO SOKUGUNYAZWA KWELUNGELO NEZEMVELO
LEGEND
Thokosa
Opencast Mine
Figure 1: Proposed prospecting right area (A:-25.887844;29.574735)
ISIMEMO SOKUBHALISA FUTHI UPHAWULE
EAP, ENVIR. TECH & APPLICANT DETAILS
GPS Map Camera
--,MP,South Africa
N11, Steve Tshwete, MP, South Africa
Lat -25.911595, Long 29.603322
04/15/2023 10:51 AM GMT+02:00
Maps

Figure 15: Erection of site notices.

Figure 16: Proof of consultation.

Deeds Office Property - List
JS, 464, MPUMALANGA

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	2023/03/09 15:11	Farm Number	464
Reference	-	Registration Division	JS
Report Print Date	2023/03/09 15:16	Portion Number	-
Farm Name	-	Remaining Extent	NO
Deeds Office	Mpumalanga	Search Source	Deeds Office

PORTION LIST

Portion	Owner	Title Deed	Registration Date	Purchase Price (R)
0	E D E FARMING PTY LTD	T5878/2014	-	-
1	SOUTH AFRICAN NATIONAL ROADS AGENCY LTD	T11620/2010	-	-

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

Figure 17: Deed search for Arendsfontein Farm 464 JS.

Table 12: Public Participation Plan - Discussion of approach and methodology to meet the requirements of the regulations.

Not every method is implemented in this category.

Regulations	Approach & Methodology to meet requirements (Alternatives)
Regulation 40(1), Regulation 40(3) & Regulation 43 – provide all potential or registered interested and affected parties, including the competent authority, access to project-related information, access to the Basic Assessment report which will be made available for at least 30 days to submit comments on draft reports before submission of final reports for decision making.	Notification of Basic Assessment (BA) process to be undertaken for application for Environmental Authorisation (EA) to be distributed using the following means: • E-mail • Post/Postnet • Process notices placed at locations that are accessible to I&APs • Advertisement in the printed media. • Face-to-face consultation Notification of availability of report and period for review using the following means: • Newspaper advert, including details of where the report can be accessed and details of the Singo Consulting website. • Notification letter (to be sent via email, fax, or post) to registered I&APs.

	• Notifications to communities via Ward Councillor, royal council members, ward committee members, identified and confirmed community representatives, and local community forum members. • SMS and/ or WhatsApp notifications where no other means are available. Availability of report for review: • Electronic copies can be made available to parties via email or wetransfer •Hard copy report to be available at public library. Submission of comments to PUBLIC PARTICIPATION OFFICER: •Comments can be submitted directly to the Public Participation Officer through email, post, or fax. •Any comments provided telephonically or via instant message will be transcribed and recorded as formal comments.
Regulation 40(2) - Provide access to all project information that has the potential to influence any decision regarding the application, unless protected by law, and must include **consultation** with Competent Authority, Organs of State & registered I&APs. Regulation 41(6) – **Relevant information available and accessible**	Provision of project information and consultation via various means including: • Telephonic consultation. • Email correspondence.

	• Correspondence sent via post. • SMS and/or WhatsApp • Site notices • Face-to-face consultation
	• Project maps (including locality map, layout map, sensitivity map, landowner map, etc) • Photos of the project site and surrounds • Presentation with narration providing a summary of the project details and the findings of the BA • Posters providing a summary of the findings of the BA • A means of submitting written comments or queries. Communities will be consulted via the relevant Ward Councillor, ward committee members, community representative or local community forum members, as determined and confirmed during the consultation process.
Regulation 41(2)(a) – Site notice	• Site notices placed at and around affected properties by the Public Participation Officer, on the 22nd of March 2023 • Size and content will be in accordance with Regulation 41(3) & 41(4).

Regulation 41(2)(b) – Written notification to affected and neighbouring landowners and occupiers; municipality; ward councillors; Organs of State & other parties required by the CA	Notification letters will be sent via email, fax, or post.
Regulation 41(2)(c) – (e) – **Advertisements**	Advert was placed in Middleburg observer local newspaper on the 17th of March 2023.
Regulation 42 – **Project database**	• I&APs to be identified through a process of networking and referral, obtaining information from the Singo Consulting existing stakeholder database, liaison with potentially affected parties in the greater surrounding area and a registration process involving the completion of a reply form. • Organs of State, key stakeholders and affected and surrounding landowners will be identified and registered on the project database
	• Other stakeholders will be required to formally register their interest in the project through either directly contacting the Singo Consulting Public Participation team via email or fax or use of the Singo Consulting website.
	• To access the Singo Consulting online stakeholder engagement platform for a specific project, I&APs will be required to provide their details such that they are automatically registered on the project database. • The register of I&APs will contain the names of: ▪ All persons who requested to be registered on the database using

	the Singo Consulting website, or in writing and disclosed their interest in the project. ▪ all Organs of State which hold jurisdiction in respect of the activity to which the application relates; and ▪ all persons who submitted written comments or attended virtual meetings and viewed virtual presentations on the Singo Consulting website during the public participation process.
	• The information captured on the project database will contain the names, organisation and contact details, as required
Regulation 44 – **Comments to be recorded**	• <u>Comments will be able to be submitted directly to the Public Participation Officer using email.</u> ▪ A means to register on the project database and provide details of their interest in the project. ▪ A means of submitting written comments or queries.
	• The online platform allows for instant feedback and comments to be submitted, in so doing saving time for the stakeholder and giving the assurance that their comments have been submitted for inclusion in the project reporting. • Written comments can also be submitted via email, post, or fax.

	• Any comments provided telephonically or via instant message will be transcribed and recorded as formal comments. I&APs without the applicable electronic facilities to access the Singo Consulting website will be provided with the opportunity to submit their comments and communicate with the public participation team via SMS, WhatsApp or by sending a Please-call-me notification. These comments will be transcribed and recorded as formal comments. • All comments received throughout the EIA process will be acknowledged and captured in the comments and responses report (C&RR) with a relevant response. <u>The C&RR will be included in the final report submitted to the CA.</u> • A means to register on the project database and provide details of their interest in the project. • A means of submitting written comments or queries. • The online platform allows for instant feedback and comments to be submitted, in so doing saving time for the stakeholder and giving the assurance that their comments have been submitted for inclusion in the project reporting. • Written comments can also be submitted via email, post or fax • Any comments provided telephonically or via instant message will

	be transcribed and recorded as formal comments. • I&APs without the applicable electronic facilities to access the Singo Consulting website will be provided with the opportunity to submit their comments and communicate with the public participation team via SMS, WhatsApp or by sending a Please-call-me notification. These comments will be transcribed and recorded as formal comments. • All comments received throughout the EIA process will be acknowledged and captured in the comments and responses report (C&RR) with a relevant response. • The C&RR will be included in the final report submitted to the CA.
Regulation 4(2) – Notification of **decision** on an application	<u>Notification of Environmental Authorisation (EA) using the following means:</u> • A notification letter with details as outlined in the EA issued will be sent via email, fax or post. • Notification will be available on the Singo Consulting website. • Notifications that the EA has been issued and where to download and/or obtain a copy to communities via Ward Councillor and his/her ward committee members and identified and confirmed community representatives. SMS or WhatsApp notification.

9. SUMMARY OF ISSUES RAISED BY I&APS

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

Table 13: Summary of issues raised by I&APs

Interested and Affected Parties List the name of persons consulted in this column, and Mark with an X where those who must be consulted were in fact consulted		Date Comments Received(Call, Fax, emails)	Issues 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					
Landowner/s	X				
EDE FARMING [redacted]			• No issues raised yet.	The owner was consulted through an email, a BID, Landowner notification letter, Windeed search results, Reg 2.2 map and coordinates were.	Proof attached as appendix 5

Lawful occupier/s of the land					
N/A					
Landowner or lawful occupier on adjacent properties					
	X		• No issues raised yet	Consultation email was sent together with BID, Reg 2.2 and Coordinates on the 20th of March 2023	Proof attached as appendix 5.
Municipal councillors					
[redacted]	X	Telephonically consultation 19th April 2023	I would like to receive the description of the project.	Email address was shared. Consultation email was sent together with BID, Reg 2.2	

				and Coordinates on the 19th April 2023.	
Local Municipality: Steve Tshwete		Face to face consultation At the Speakers officer 22nd of March 2023	I will hand over the BID to the environmental officer.	The Environmental Officer could not be located, but the Speaker was given the Bid. We're waiting to hear back.	
District Municipality: Nkangala			• No issues raised yet	Consultation email was sent together with BID, Reg 2.2 and Coordinates on the 20th of March 2023	Proof attached as appendix 5.
Organs of state (Responsible for infrastructure that may be affected: Roads, Departments, Eskom & DWA)					
Eskom	X		• No issues raised yet	Consultation email was sent together with BID, Reg 2.2 and Coordinates on the 20th of March 2023	Proof attached as appendix 5.
SANRAL	X		• No issues raised yet	Consultation email was sent together with BID, Reg 2.2, and Coordinates on the 20th	Proof attached as appendix 5.

				of March 2023	
Communities					
V [redacted]		Face to face feedback On the 16/04/2023	Community members requested to sit amongst themselves and discuss how they feel about the project. Feedback will be provided through an email.	Thank you for agreeing to meet with us. We will await your respond.	
Dept. Land affairs					
COMMISSION ON RESTITUTION OF LAND RIGHTS [redacted]	X		• No issues raised yet	Consultation email was sent together with BID, Reg 2.2 and Coordinates on the 20th of March 2023	Proof attached as appendix 5.
Tribal leaders	X				
Ndzundza Sirudla traditional council Kwamalemani in Woestallen. [redacted]		Face to face feedback 16/04/2023	He does not have the problem with the project, but should the project move to the next stage he would like to have a meeting with the applicant.	Face to face meeting on the 16/04/2023. A BID was shared with the Chief.	
Dept. of Economic Development, Tourism and Environmental affairs					
			• No issues raised yet.	Consultation email was sent together with BID, Reg 2.2	Proof attached as appendix 5.

				and Coordinates on the 20th of March 2023.	
Other competent authority					
Mpumalanga TOURISM AND PARKS AGENCY	X		• No issues raised yet.	Consultation email was sent together with BID, Reg 2.2 and Coordinates on the 20th of March 2023.	Proof attached as appendix 5.
labour Department: Labour REPUBLIC OF SOUTH AFRICA	X		• No issues raised yet	Consultation email was sent together with BID, Reg 2.2 and Coordinates on the 20th of March 2023.	Proof attached as appendix 5.
environmental affairs Department: Environmental Affairs REPUBLIC OF SOUTH AFRICA	X		• No issues raised yet.	Consultation email was sent together with BID, Reg 2.2 and Coordinates on the 20th of March 2023.	Proof attached as appendix 5.
agriculture, land reform & rural development Department: Agriculture, Land Reform and Rural Development REPUBLIC OF SOUTH AFRICA	X		• No issues raised yet.	Consultation email was sent together with BID, Reg 2.2 and Coordinates on the 20th of March 2023.	Proof attached as appendix 5.
SAHRA					

 https://www.sahra.org.za/	X		• No issues raised yet.	Submitted consultation online on the 24th of March 2023.	Proof attached as appendix 5.
Interested and Affected Parties					
Rockdale industrial		Email feedback received on 30th of March 2023	187 households will be directly affected by your client's attempt to extract resource at their doorstep. Animal right protector from blasting, dust creation that will affect swine within 5 km range of your proposed mine.	BID was shared at the reception on 22nd March 2023.	Proof attached as appendix 5.

10. THE ENVIRONMENTAL ATTRIBUTES ASSOCIATED WITH THE ALTERNATIVES. (THE ENVIRONMENTAL ATTRIBUTED DESCRIBED MUST INCLUDE SOCIO-ECONOMIC, SOCIAL, HERITAGE, CULTURAL, GEOGRAPHICAL, PHYSICAL AND BIOLOGICAL ASPECTS)

a) Baseline Environment

(i) *Type of environment affected by the proposed activity.*

(Its current geographical, physical, biological, socio- economic, and cultural character).

The proposed Prospecting Project is located within the Magisterial District of Middleburg under the jurisdiction of the Steve Tshwete Local Municipality, situated within the Nkangala District Municipality.

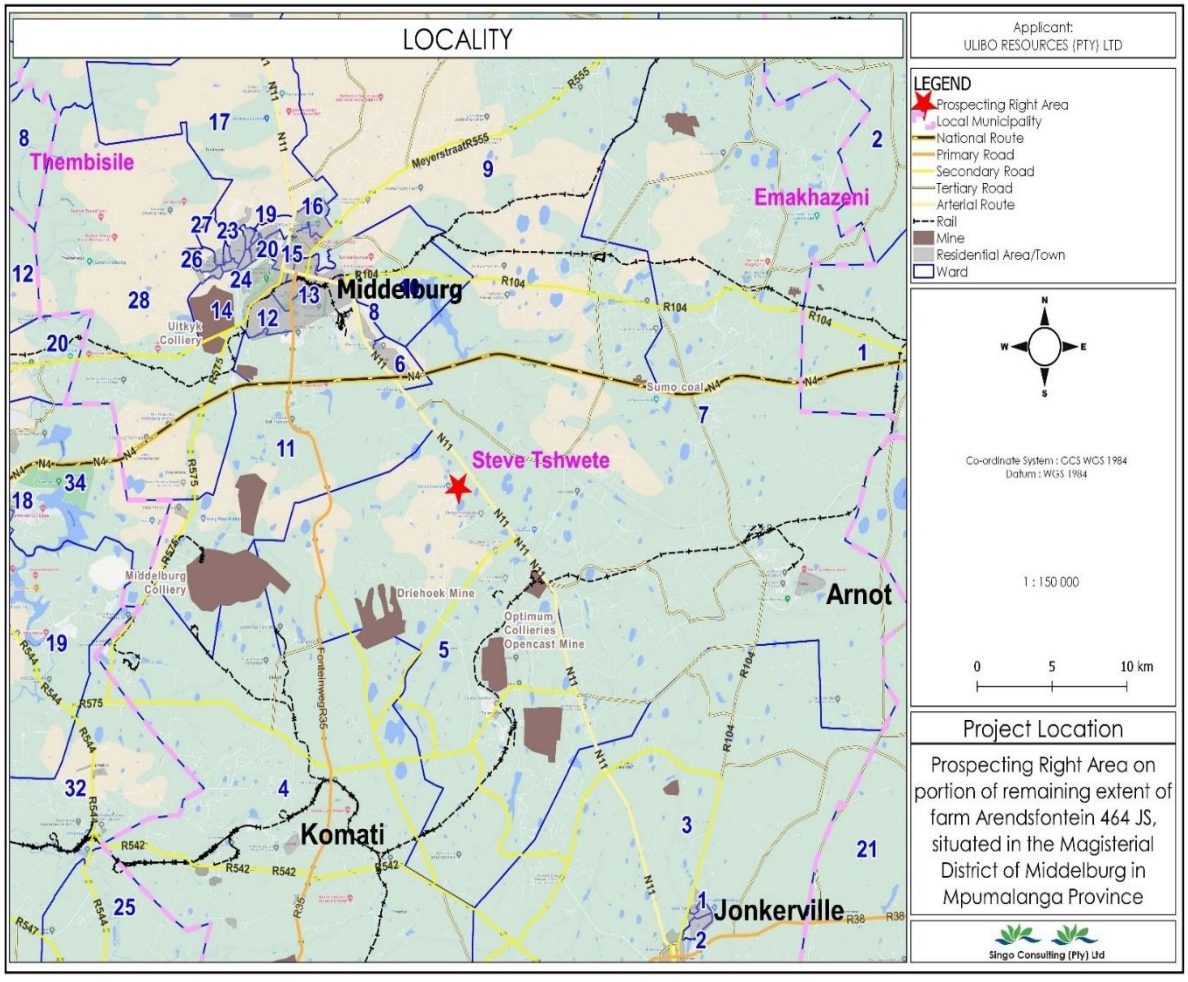


Figure 18: Locality map of prospecting project.

10.1 Topography

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. The flow of water during rainy seasons flows from the area of high elevation to the area of low elevation. The topographical map below was created by out GIS Specialist in desktop study, and the contour interval is 5 m. The pattern of the contour lines says a lot about the topology of the area. In interpretation of the map below, the land is gentle hence we see the contour lines being dispersed. In this environmental project, topography is used to determine how surface water flows during rainy seasons or how it would flow during the existence of the project. The topography also influences groundwater vulnerability, as topography also influences run-off and infiltration rate by means of residence time. The flow of water during rainy seasons flows from the area of low elevation to the area of high elevation as it is indicated by contour lines. The topography of the project area is situated in a gentle topography as displayed by the contour lines on the topology map below.

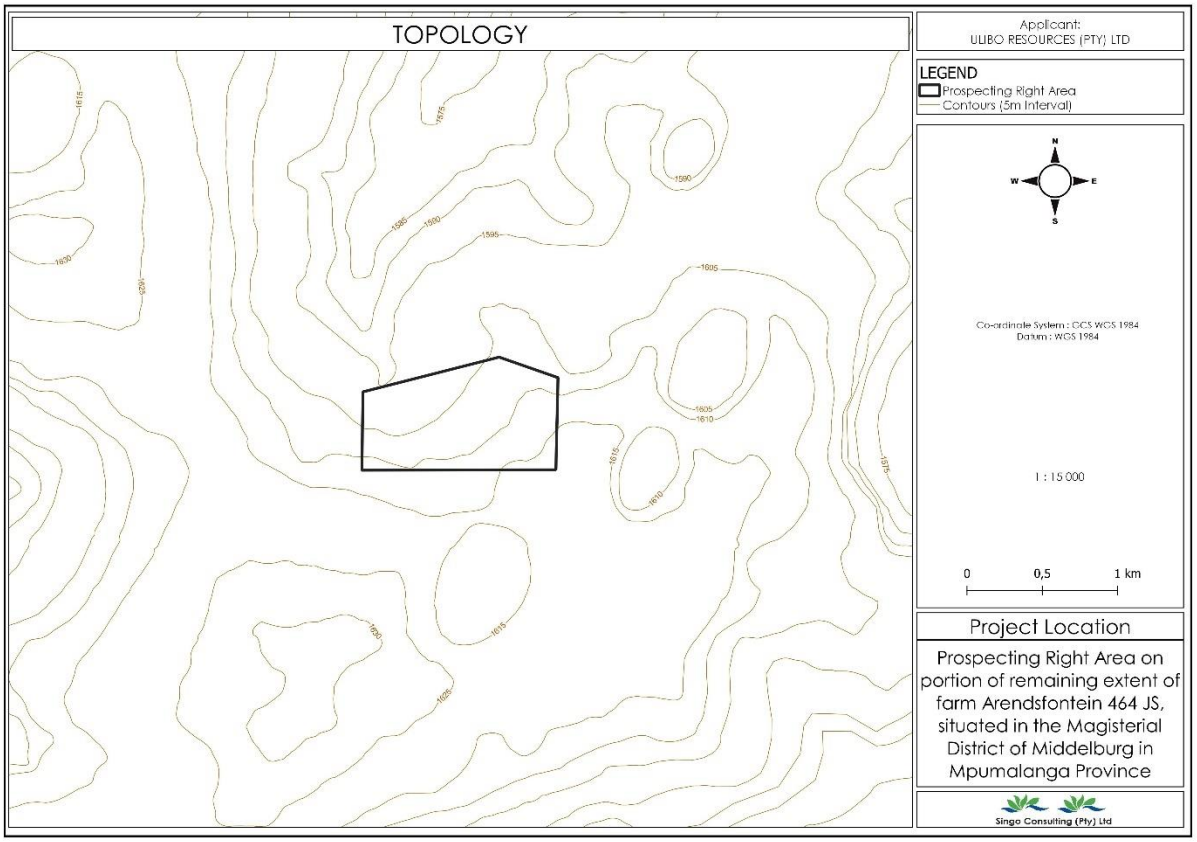


Figure 19: Topology of the area.

10.2 Regional Climate

The project area falls under the central Mpumalanga climatic zone characterized by warm, rainy summers and dry winters with sharp frosts.

In Middelburg, the climate is warm and temperate. In winter, there is much less rainfall in Middelburg than in summer. The climate here is classified as Cwb by the Köppen-Geiger system. In Middelburg, the average annual temperature is 16.5 °C | 61.7 °F. The rainfall here is around 714 mm | 28.1 inch per year.

Middelburg is in the southern hemisphere. Summer begins here at the end of January and ends in December. The months of summer are December, January, February, March.

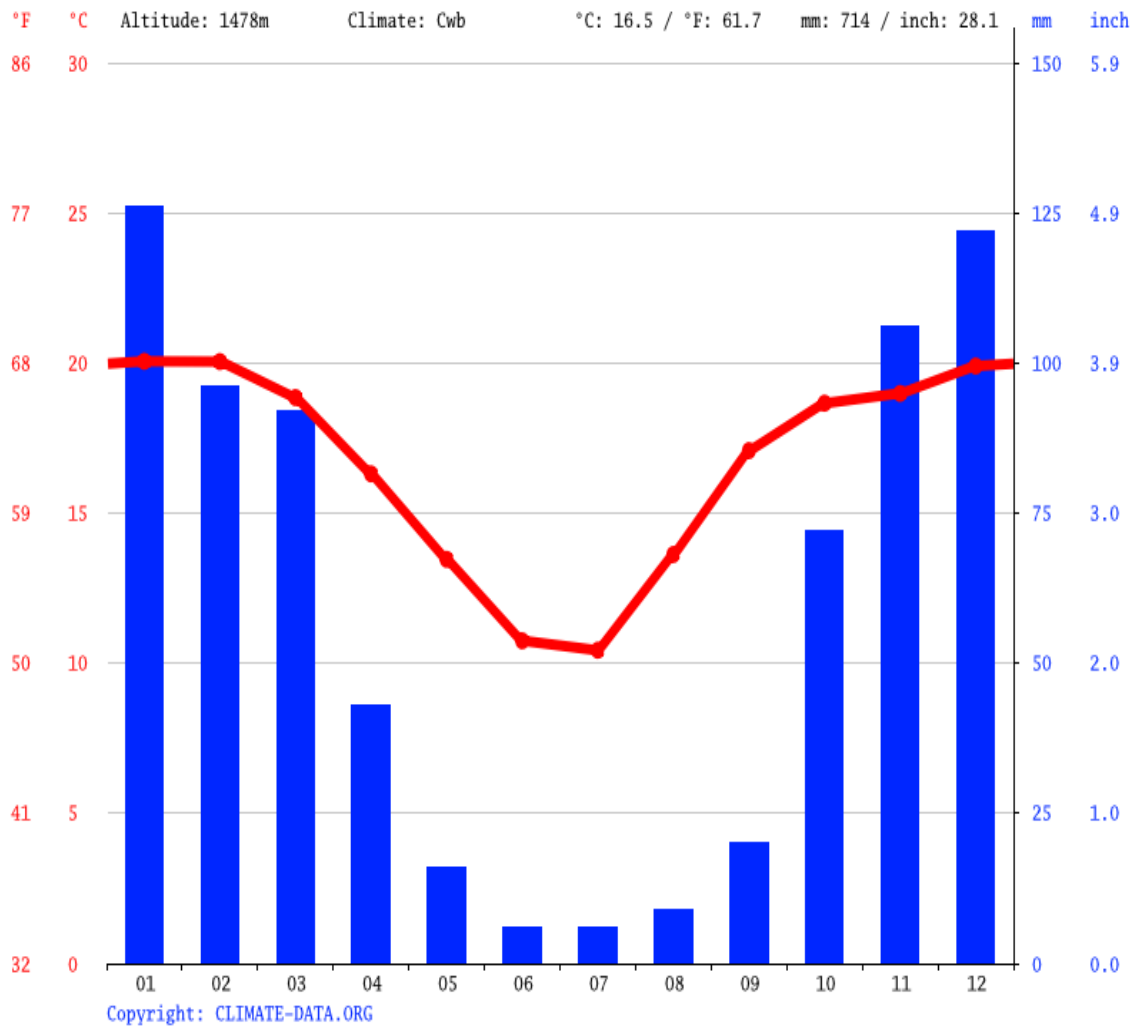


Figure 20: Climatic weather graph per month in the project area.

The proposed project area receives mean annual rainfall of 601mm to 800mm. The driest month is July, which receives an average of 1.7mm precipitation, and the wettest month is January, which receives the most precipitation, averaging 194.4 mm. The mean annual rainfall for the project is shown in Figure 19 below.

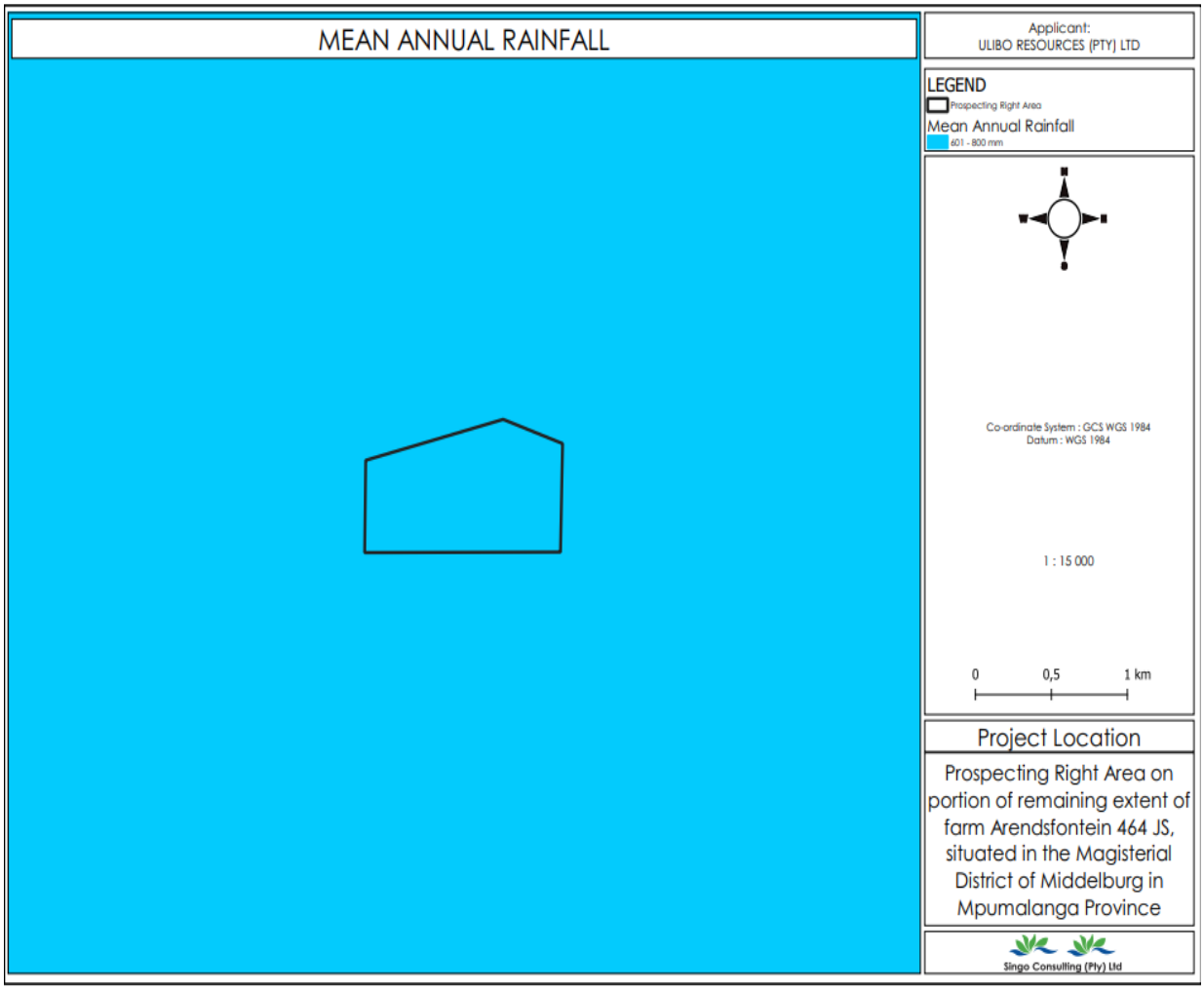


Figure 21: Mean annual rainfall map.

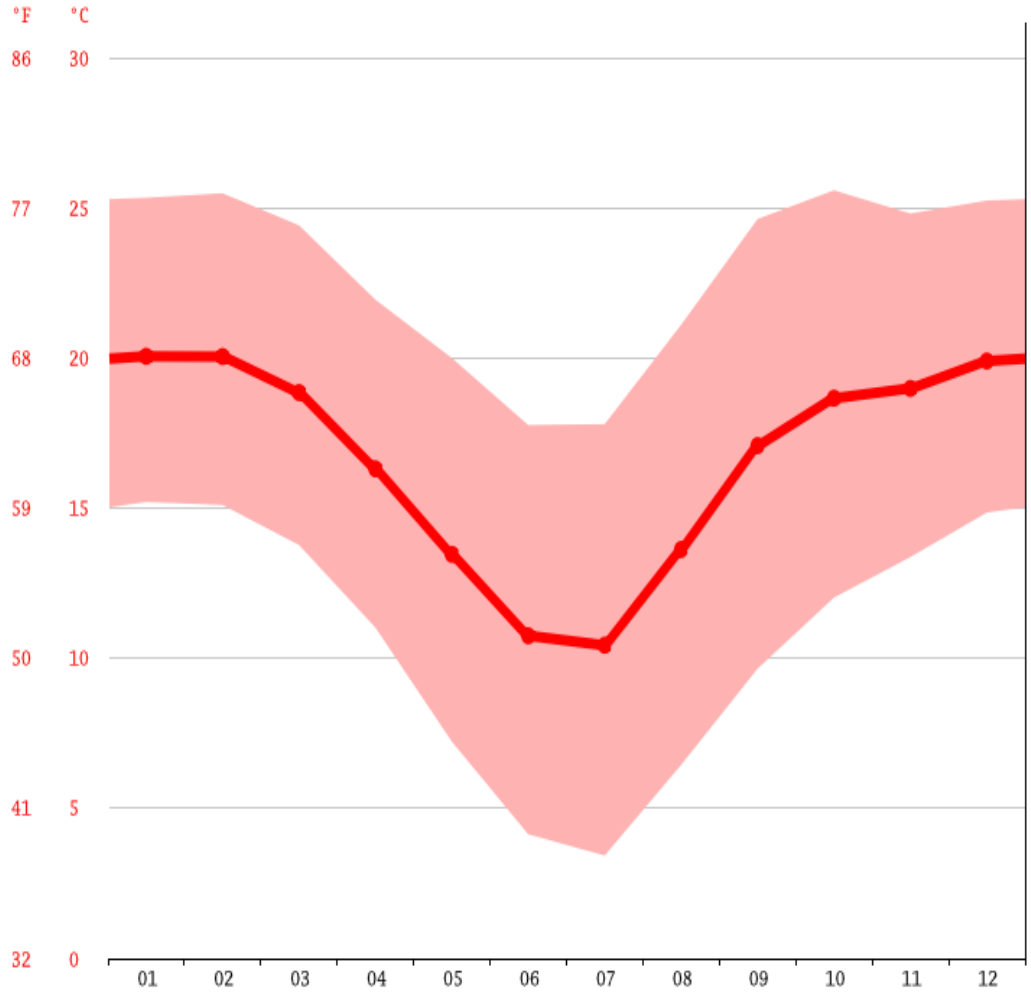


Figure 22: Average temperature per month in the project area

10.3 Geology

10.3.1 Regional Geology

The description of the geology is based on the existing knowledge and literature of the region.

The project is underlain by rocks of varying age. The oldest rocks of the Waterberg Group are overlain by Karoo sediments (Mahanyele 2001). The target area is located within the Karoo Supergroup, a sequence of sediments. The target area is in the Dwyka Group. The unit that will be explored is hosted within a sedimentary sequence of sandstone, arenite, and shale. The Karoo Supergroup is a sedimentary sequence known for its coal content and has been explored extensively in the KwaZulu-Natal and Mpumalanga provinces. There are still resources of coal and other minerals in this rock sequence that can be explored for.

Karoo Supergroup

The Karoo Supergroup is underlain by the Witwatersrand, Ventersdorp and the Transvaal Supergroups. The latter was deposited during the Archean period (3.1–2.0 MYA) followed by the deposition of the Karoo Supergroup on top of the latter during the Phanerozoic period (60 MYA) (McCarthy and Rubidge, 2005). The main Karoo Supergroup basin covers over 50% of South Africa's surface and it is made up of five groups namely Dwyaka which preserves evidence of the widespread Gondwana glaciation in the form of glacial sediments (diamictites & tillite) followed by the Ecca Group which is known as the ice age which preserves records of sedimentation in a shallow, landlocked sea and it is a coal bearer; The overlying Beaufort Group whereby the sediments mark a period of extensive flood plains in warmer and drier climates, with sedimentary input from all directions; followed by the Stormberg Group which marks the return of semi-arid and arid conditions then lastly the Drakensberg Group which is dominated by the flood basalt. The sedimentary sequence represents environments ranging from glacial to arid and it is capped by the basaltic lava of the Drakensberg group. It is dominated by diamictites, conglomerates, black shales, mudstone, siltstone and sandstones with thin coal beds (Paul & Selden, 2012).

Dwyka Group

The Permo-Carboniferous Dwyka Group is the oldest deposit in the Karoo Supergroup and spans the Late Carboniferous to Early Permian. The Dwyka Group overlies the glaciated Precambrian bedrocks in the north and unconformably and paraconformably the Cape Supergroup. Glacial pavements underlaying the Dwyka Group has well-developed striations (specifically in the north) (Johnson et al, 2006). The Dwyka Group is believed to be deposited in a marine basin (Visser, 1989). South Africa was covered by an ice sheet during the Dwyka. These deposits were thus deposited in a cold, glacially dominated environment. The Group consists primarily of gravelly sediments with subordinate varved mudstones and shales with scraped and facetted pebbles. The retreating glaciers deposited dark-grey tillite (Visser et al, 1987). Tillite is mostly a very fine-grained, blue-grey rock comprised of clay matrix with inclusions (or clasts) of many other fragments picked up by glaciers during their travel The Dwyka is known for its rich assemblage of dropstones of various sizes as well as its track ways (trace fossils). The Group is dominated by Tillite and Diamictite.

Ecca Group

The proposed study area is also covered by the Ecca Group (Vryheid formation) of the Karoo Supergroup. The coal bearing group is the Early Permian-age Ecca Group, which primarily consist of siltstones, organic-rich mudstone, sandstone and minor conglomerates which were deposited on the northern shoreline of the Karoo Sea under warm climate conditions in shallow water deltas and wetlands (Catuneanu et al., 2005). The Ecca group produces abundant coals in its marshy depositional environment, mostly in the northern part of the basin. The Ecca group contains almost all of South Africa's coal resources and it is made up of sixteen formations, but our main focus or interest is the Vryheid formation since it covers the proposed prospecting area.

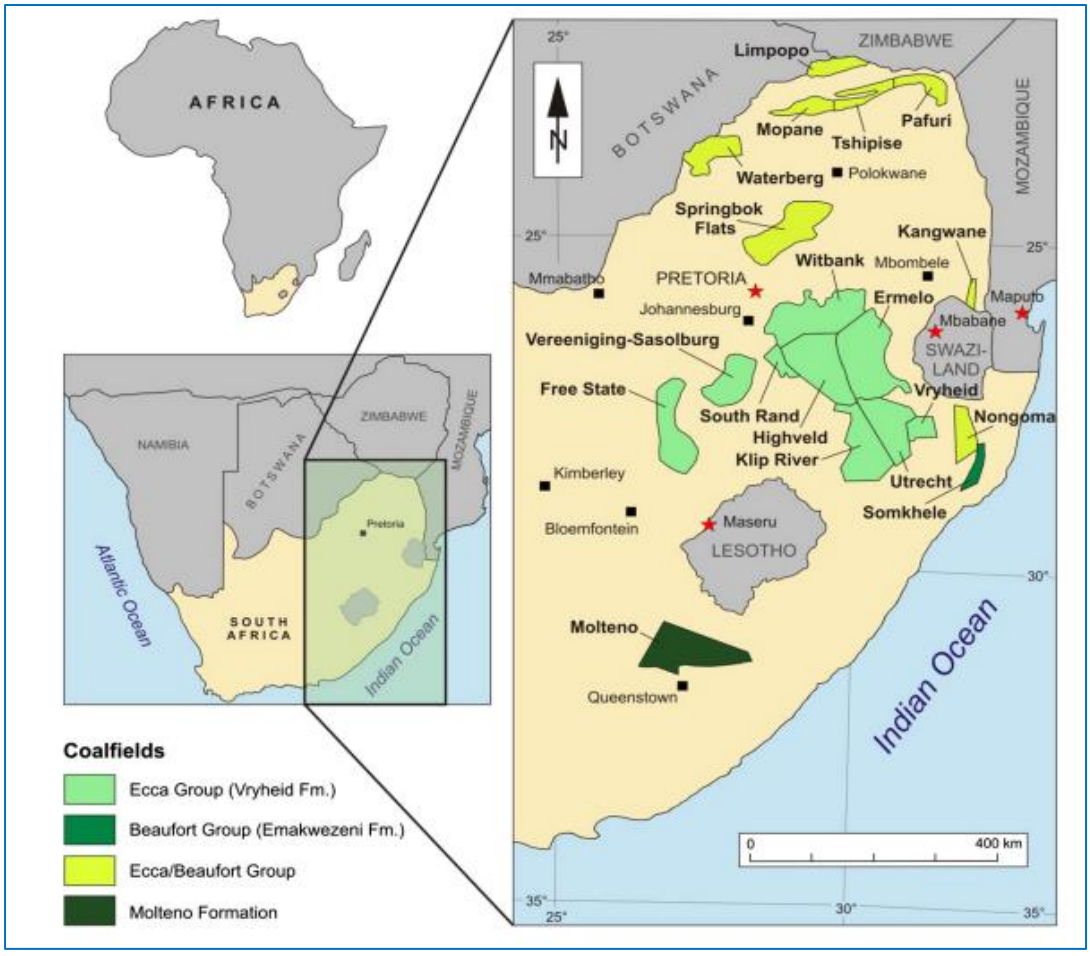


Figure 23: South Africa's coalfields.

10.3.2 Description why the Geological formation substantiates the minerals to be prospected for

Witbank Coalfield

The No. 2 Seam Sequence includes the succession from the top of the basement to the top of the No. 2 Seam, which may be up to a maximum development of 60 m in places (Le Blanc Smith, 1980a). It incorporates the rocks of the Dwyka Group, as well as the overlying No. 1 and No. 2 coal seams. It should be noted that we accept that the Dwyka has separate Group status, but that it is described as the basal part of the No. 2 Seam Sequence. The thickness of the Dwyka Group in the Witbank Coalfield also varies considerably dependant on the nature of the underlying topography. It ranges from being thin or absent over the most prominent pre-Karoo topographic highs, to over 25 m thick in the central part of the Witbank Coalfield (Le Blanc Smith and Eriksson, 1979) to 30 m thick (Glasspool, 2003) in the deeper palaeo valleys. Le Blanc Smith and Eriksson (1979) note that the fill consists of poorly sorted matrix rich diamictites, laminated sandstones and siltstones, stratified pebbly mudstones and cross-stratified conglomerates.

In the western Witbank Coalfield, the No. 2 Seam Sequence tends to be much more variable in nature than it is in the central part. This is mainly due to the irregular nature of the Transvaal Supergroup (Malmani Group) dolomite floor. The Dwyka Group outcrops in the area around
Delmas and is also well known from borehole core, which show the succession to be between 0 and 10 m in thickness. The base of the No. 2 Seam Sequence is usually formed by poorly sorted matrix rich diamictites, with angular to rounded basement clasts, set in a matrix of fine- to medium-grained sandstone, which may be highly carbonaceous in places. Maximum clasts sizes documented by the authors are in the region of 30 cm. According to Le Blanc Smith (1980a) the Dwyka Group diamictites may in turn be overlain by a succession up to 36 m thick of mudstone and siltstone, which grades upwards to sandstone and conglomerate that form the floor of the No. 1 Seam or its carbonaceous mudstone equivalent.

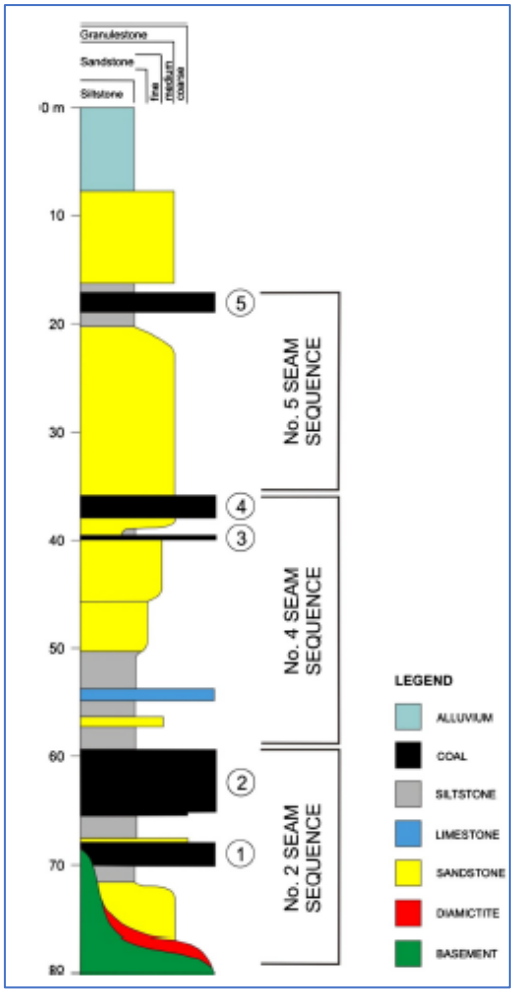


Figure 24: Typical examples of Witbank Coalfield stratigraphy (Winter, 1985).

10.3.3 Local Geology

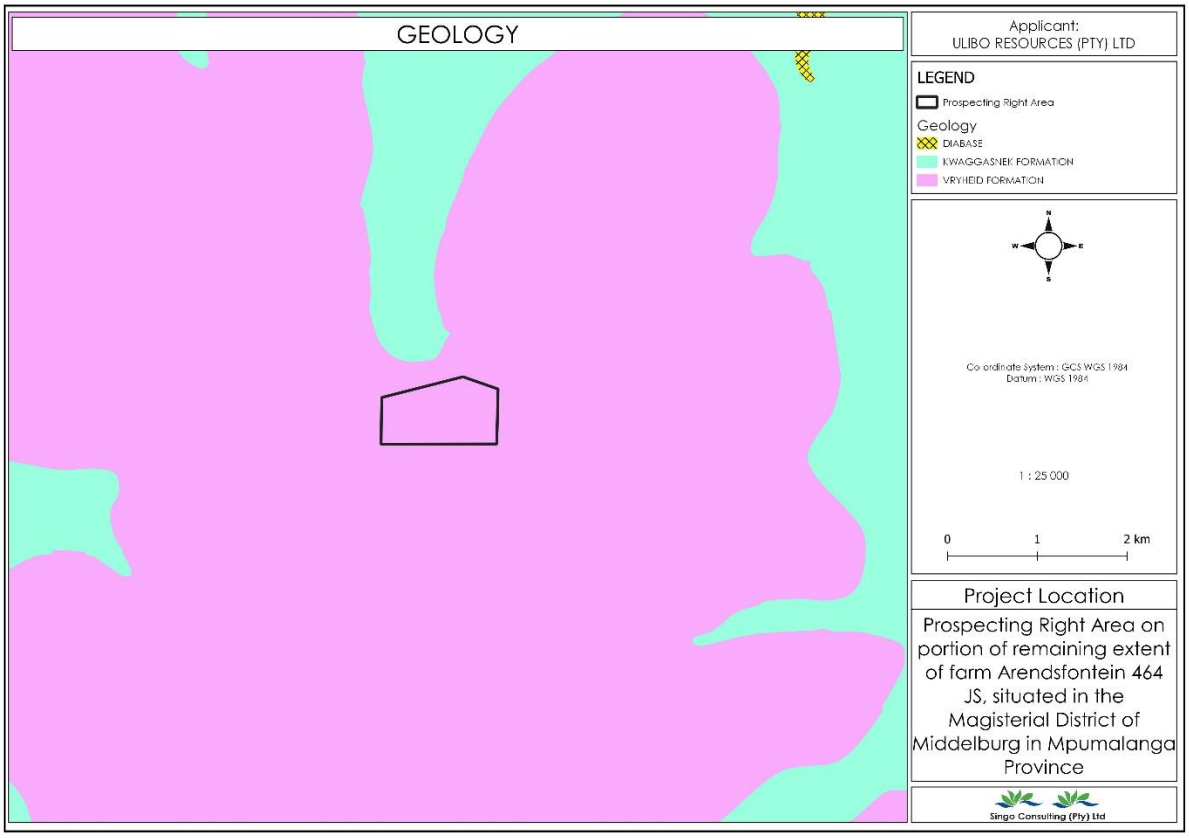


Figure 25: The local Geology of the area.

Geological formations present in the proposed project area are indicated in the geology map above and include the following:

Vryheid Formation

The Vryheid formation is dominated by mudrock, rhythmite, siltstone and fine- to coarse-grained sandstone (pebbly in places). The Formation contains up to five (mineable) coal seams. The different lithofacies are mainly arranged in upward-coarsening deltaic cycles (up to 80m thick in the southeast). Fining-upward fluvial cycles, of which up to six are present in the east, are typically sheet-like in geometry, although some form valley-fill deposits. They comprise coarse-grained to pebbly, immature sandstones - with an abrupt upward transition into fine-grained sediments and coal seams.

The facies types comprising the clastic sedimentary lithologies of the Vryheid Formation are predominantly conglomeratic granule stone, and coarse- to very coarse-grained arkosic sandstone, with lesser amounts of carbonaceous siltstone, bioturbated siltstone, minor carbonate-siderite beds, and coal. The majority of the economically extracted coal in South Africa occurs in rocks of the Vryheid Formation, which ranges in thickness in the MKB from less than 70.0 m to over 500.0 m. It is thickest to the south of the towns of Newcastle and Vryheid, where maximum subsidence took place (Du Toit, 1918; Cadle, 1975; Whateley, 1980a; Stavrakis, 1989; Cadle et al., 1982) and where the basin was the deepest.

The soils derived from these Members are generally very shallow and are poor in nutrients, except for the soils derived from the lavas which are richer in nutrients and are generally deeper (SACS 1980).

10.4 Soil Study

The most prominent soil type in the project area is freely drained, structureless soils as seen in the soil classes map below. A small part towards the south of the area is characterised by lithosols.

Freely drained structureless soils

This type of soil is characterised by sand, red soil which is less productive due to domination of sandy soils. They have severe limitations that reduce the choice of plants or that require special conservation practices. The soils and miscellaneous areas have limitations that preclude commercial plant production and restrict their use to recreational purposes, wildlife habitat, or aesthetic purposes. 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, though, 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.

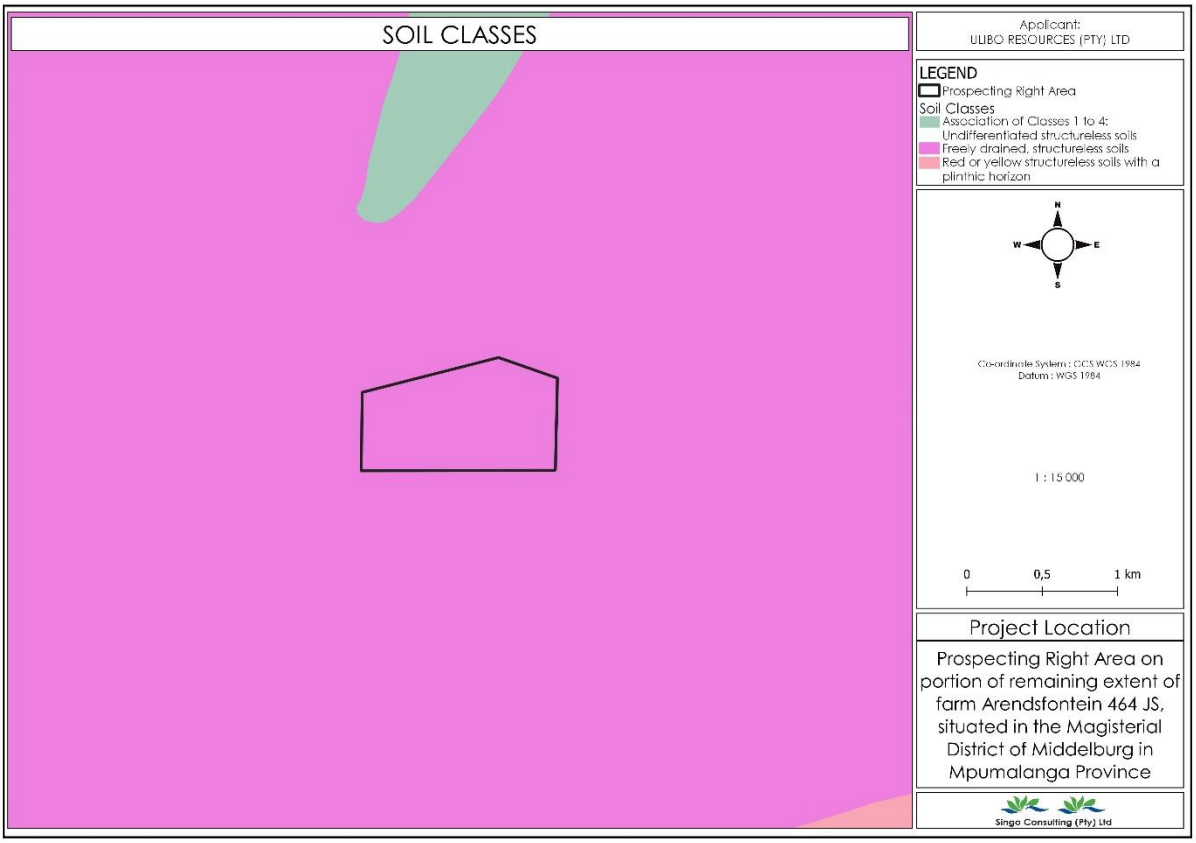


Figure 26: soil classes map of the project area.

Figure 27:Soil type observed on site.

Recommendations:

- The soil within the proposed area is characterized by sand, red soil which is less productivity due to dominating of sand soils have severe limitations that reduce the choice of plants or that require special conservation practices.
- The land use on the investigation site is covered largely by cultivated land use type, several waterbodies, natural land as well as uncategorized land use.
- The coal ore prospecting infrastructure will have less impact on soils and footprint will be minimal.
- It is anticipated that the chrome ore prospecting activities will not lead to severe loss of soils and degradation of agricultural potential.
- It is highly recommended to do rehabilitation after the period of chrome ore prospecting activities cease.
- And all the wetlands and non-perennial rivers will be buffered as "no go" area preferably a 500 m buffer will apply.
- No washing of any mechanical equipment or vehicles should be allowed 500 m from the water resources.
- The core logs of boreholes with chrome ore material should be cleared from the ground immediately after logging by the geologists to prevent washing and leaching to the water resources during precipitation events.

10.5 Land capability

According to the map produced by the GIS technician (see Figure 30), the land capability of the area as seen on the following figure is said to be arable. The site assessment conducted on the 22nd of March 2023 correlates to the current land use on site. The land is used for livestock grazing and maize farming. The application area is comprised of cultivated land and natural vegetation. (See figure 28,29,30 below).

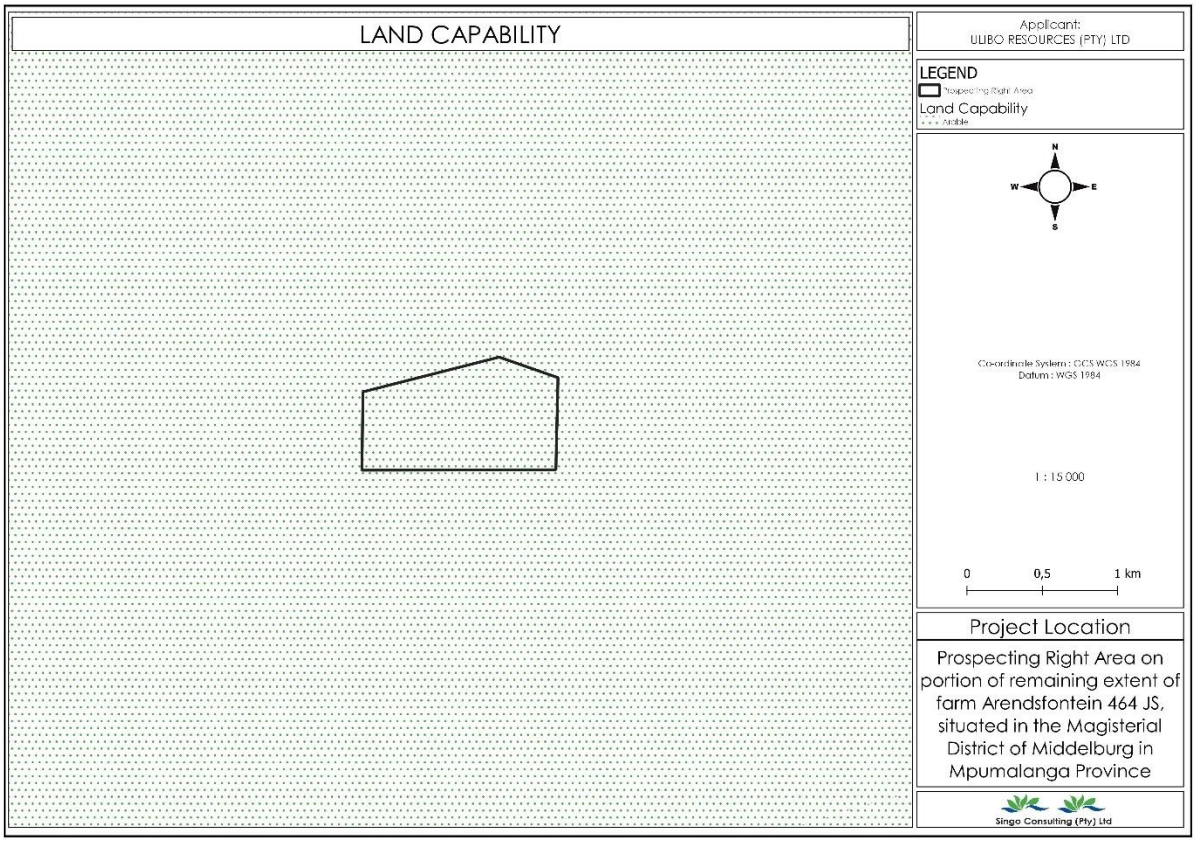


Figure 28: Land capability map

Figure 29: Cultivated land.

Figure 30: Natural vegetation

10.6 Catchment Description

South Africa's water resources are divided into quaternary catchments, which are the country's primary water management units (DWAF 2011). In a hierarchical classification system, a quaternary catchment is a fourth order catchment below the primary catchments. The primary drainages are further classified as Water Management Areas (WMA) and Catchment Management Agencies (CMA). In accordance with Section 5 subsection 5(1) of the National Water Act, 1998, the Department of Water and Sanitation (DWS) has established nine WMAs and nine CMAs as outlined in the National Water Resource Strategy 2 (2013), (Act No. 36 of 1998). The purpose of establishing these WMAs and CMAs is to improve water governance in various regions of the country, ensuring a fair and equal distribution of the Nation's water resources while ensuring resource quality is maintained.

The regional hydrological setting of the project site is indicated in Figure 18. The project area is in the Olifants Water Management Area (WMA). The project area falls in one WMA area. The project area falls in the B12C quaternary catchment within the Olifants WMA.

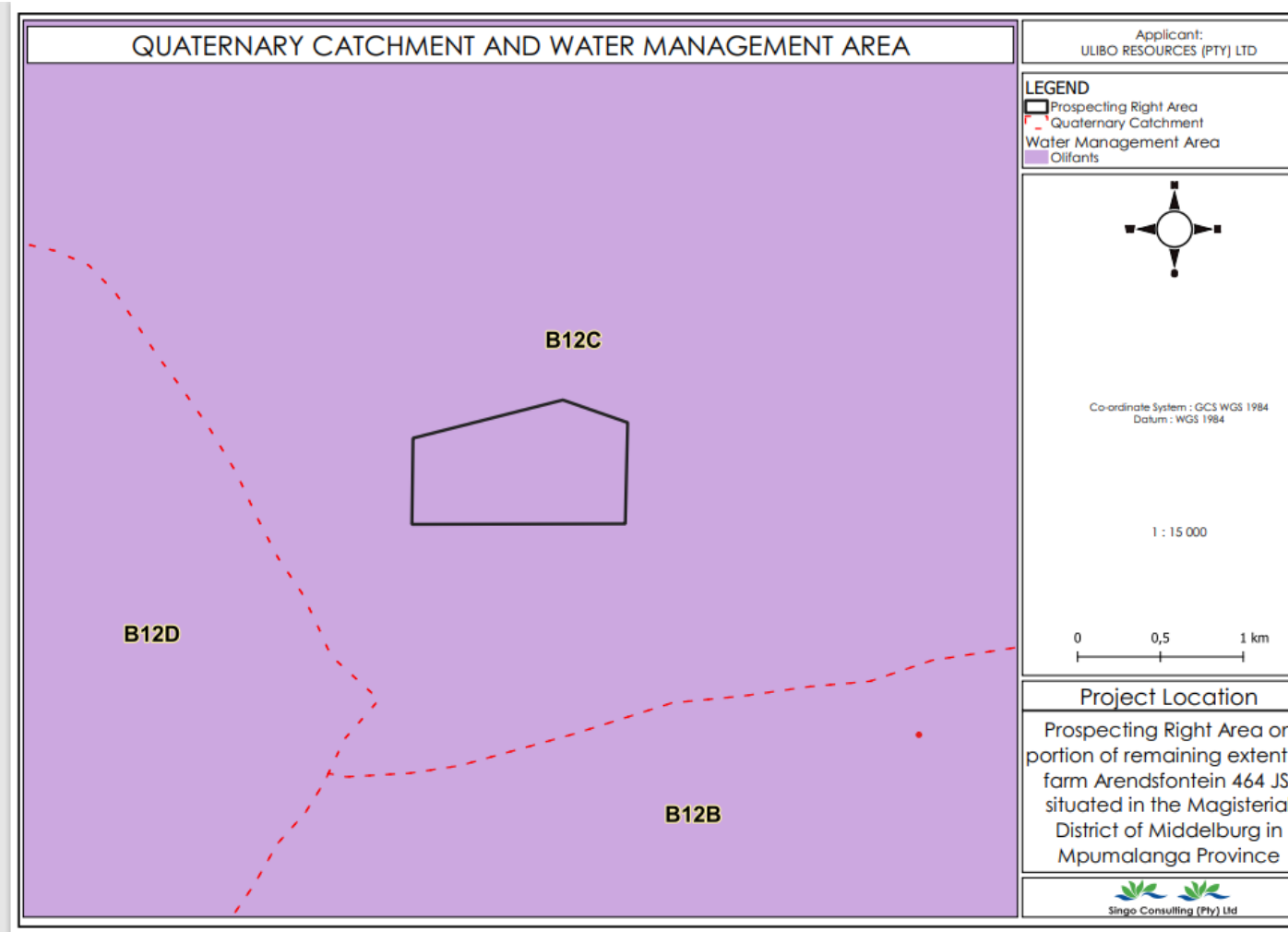


Figure 31: Quaternary catchment map

10.7 Surface Water

The hydrology surrounding the proposed area is of vital importance. 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. Site visit is the most significant part of the investigation. A site survey was conducted on the 22nd of March 2023 as part of environmental assessment, to confirm the water bodies observed on the hydrological map and to take pictures of the current environmental condition before the commencement of the proposed prospecting where a potential to be impacted upon by the project exist. The hydrology map, illustrates that the following water bodies exists within and nearby the project area:

- Channeled valley-bottom
- Depression

- ❖ Seep
- ❖ Non-perennial river
- ❖ Dams

- **Non-Perennial:** Periodic or non-perennial rivers are those rivers which do not have a constant flow throughout the year. The study area is comprised of nonperennial streams, which are flowing towards the northeast direction.
- **Wetlands:** Seep and channelled valley bottom identified within and around the study area. Drilling process is associated with a sump which is filled with dirty, or wastewater used during the drilling process. As such the sump should not be allowed to overflow. Or located in proximity with the identified water resources.

These are important natural water resources that should not be disturbed by anthropogenic activities. For this project where prospecting right poses a risk on them, will be measures and guidelines put in place that will protect the water resources in this area to ensure optimal conservation of water. The exploration geologists will be advised to drill and sample away from any available rivers and wetlands on site.

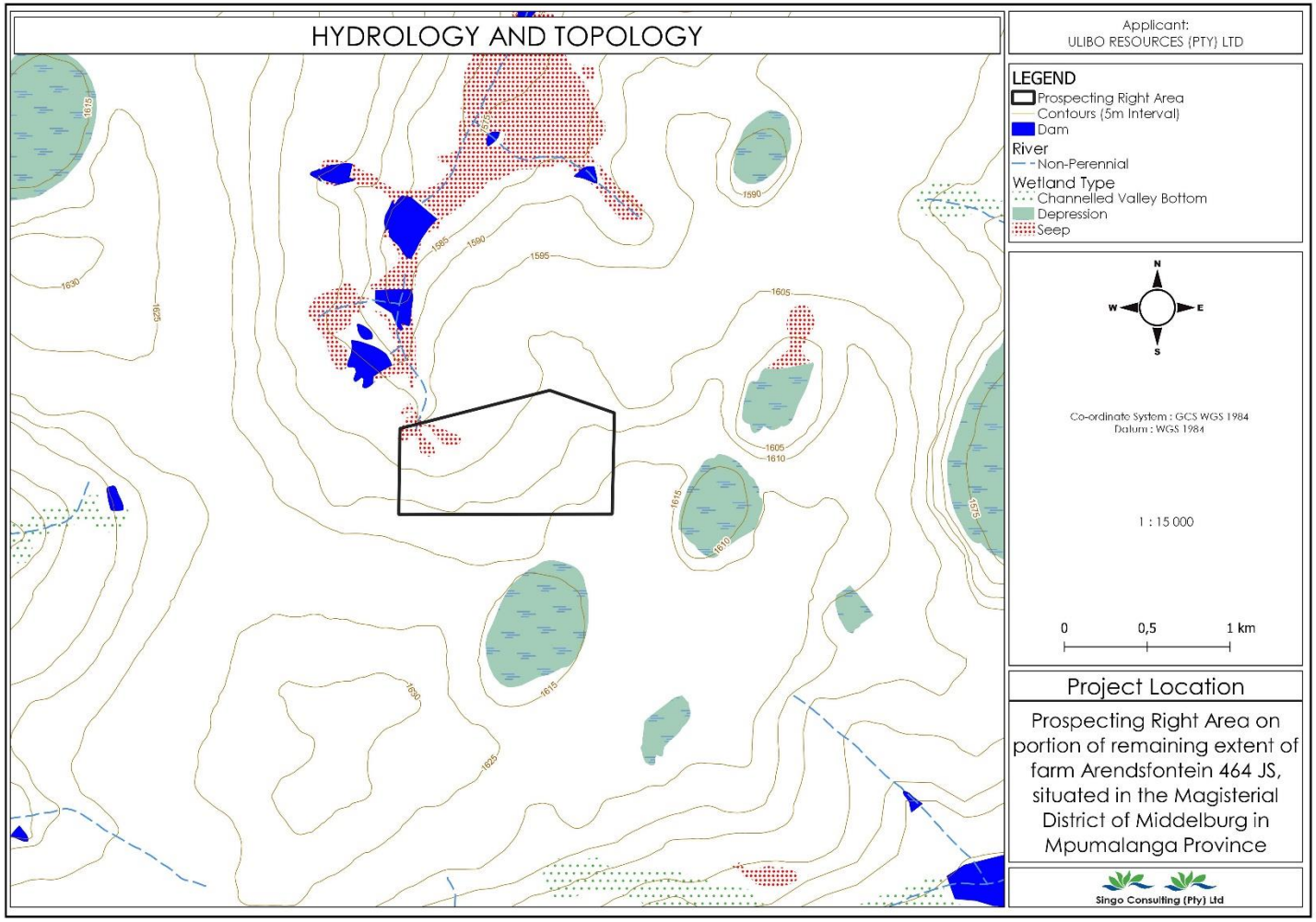


Figure 32: Hydrology and Topology Map.

These are important natural water resources that should not be disturbed by anthropogenic activities. For this project where prospecting right poses a risk on them, measures and guidelines will be put in place that will protect the water resources in this area to ensure optimal conservation of water. The wetland (500m away from prospecting area) was observed on the boundary of the project area will be buffered and categorized as a no-go zone and prospecting will only occur on open land. In addition, prospecting will occur during dry seasons where the water percentages are low in the water bodies and the exploration geologists will be advised to drill and sample away from wetlands. Wetlands were observed on site about 500 m from the prospecting project area.

Figure 33Wetland situated 500 m from the project are.

The screening report that has been developed revealed that the proposed prospecting area has an aquatic biodiversity that is very high sensitivity (seen in Figure 34 below), within the area there is very high sensitivity features which including the Aquatic CBAs, Wetlands and Estuaries. The buffers must ensure that no physical prospecting will take place on the observed water resources within or nearby the project area.

MAP OF RELATIVE AQUATIC BIODIVERSITY THEME SENSITIVITY

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low sensitivity
Very High	Wetlands and Estuaries

Figure 34: Aquatic biodiversity theme sensitivity (Source: screening report)

Recommendations

- All wetlands and non-perennial streams of increased ecological importance and sensitivity should be considered during all phases of the development.
- Access to the site should be limited to a single access entry point and access to the remainder of the wetland features should be prohibited to prevent compaction of soils, loss of vegetation and increased erosion.

- ❖ Access into adjacent wetlands and rivers, particularly by vehicles, is to be strictly controlled.
- ❖ All spills must be cleaned up and treated accordingly.
- ❖ Ensure that permanent, seasonal, and temporary wetland zone as well as riparian zones functionality is maintained through provision of measures to ensure that soil wetting conditions are maintained.

Drilling and sitting of boreholes

The exploration boreholes will be drilled one at a time at various locations within the proposed project area. The depths of the drill holes will average to not more than 110 m and will be confirmed onsite whilst the drilling programme is underway as influenced by the depths and dips measured in other holes. A buffer of 100m will be kept from identified wetlands and rivers subject to Regulation 48 (2) of MPRDA, NWA (1998), NEMA (1998) (2000) and Regulation 17 of Mine Health & Safety Act (1996).

500m radius from the boundary (extent) buffer of any wetlands and 100m rivers must delineated and mapped to avoid negative impacts as seen in figure below.

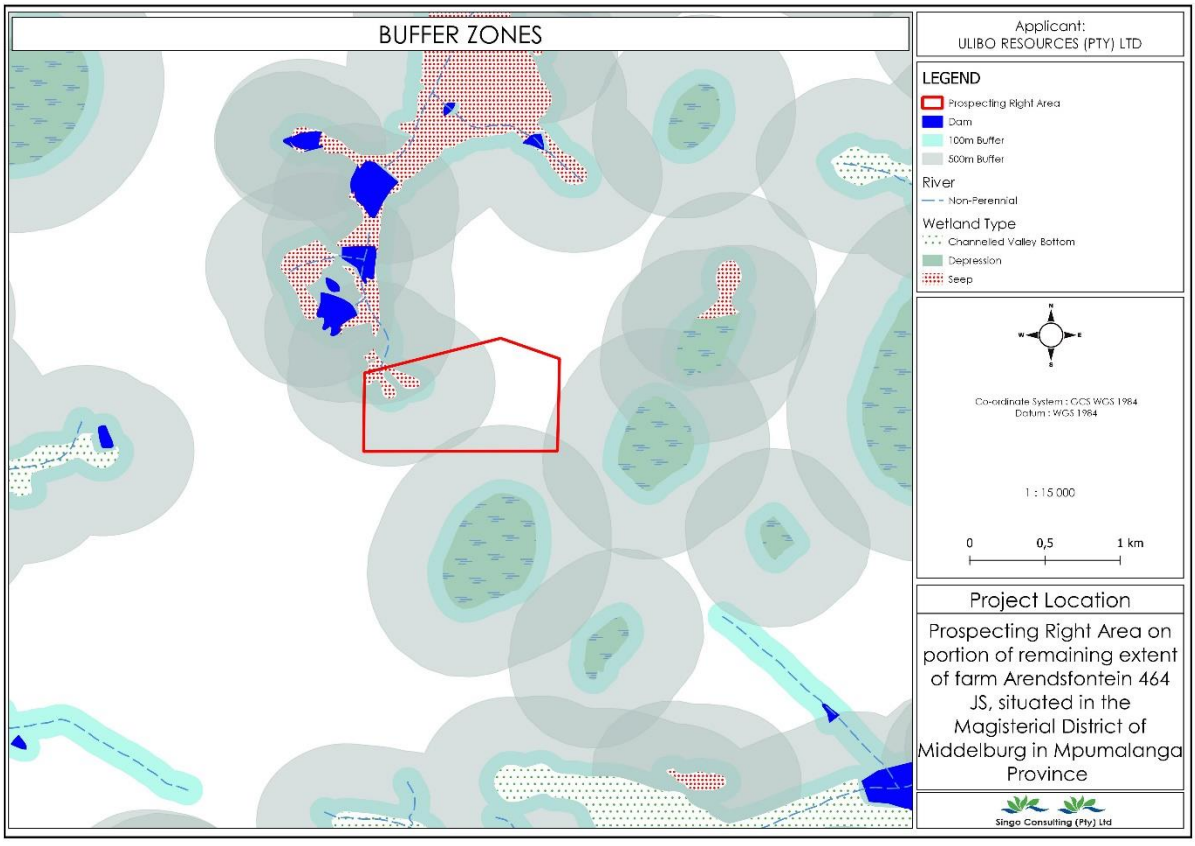


Figure 35: Hydrological buffer map [Figure illustrates the buffer that will be applied to protect the integrity of the water courses.]

10.8 Ground Water

According to the Hydrogeology Study, the fractured aquifer consists of a greenish fine-grained laminated shale with interlayered carbonate layers. The pores of the geological units are generally well cemented, and the principal flow mechanism is fractured flow along secondary structures e.g., faults, bedding plane fractures etc. The intrusion of the fractured aquifer by dolerite dykes and sills has led to the formation of preferential flow paths along the contacts of these lithologies due to the formation of cooling joints.

The dykes may act as permeable or semi-permeable features to impede flow across the dykes. The flow mechanism is fracture flow as can be expected from the crystalline nature of the shale rocks. The water quality is generally characterized by high fluoride levels which limits exploitation of this aquifer in combination with the general low yields, deep (expensive) drilling and the low recharge (Grobbelaar et al, 2004). Prospecting of the Coal has resulted in the introduction of an artificial aquifer system which generally dominates the groundwater flow on a local and regional scale.

Below is a cross sectional figure of a typical fractured aquifer. Water exists in fractures in Karoo weathered aquifers. Two important characterizations that exist in the study area is the upper weathered aquifer system and the lower fractured aquifer system. If the purpose of drilling boreholes is for the supply of water, drillers will usually be directed to drill targeting the fault zones, however in the present study where the boreholes to be drilled are for Coal exploration, fault zones and contacts should be avoided at all costs, to minimize the impact to groundwater. The boreholes drilled must be cased to avoid clogging and contamination.

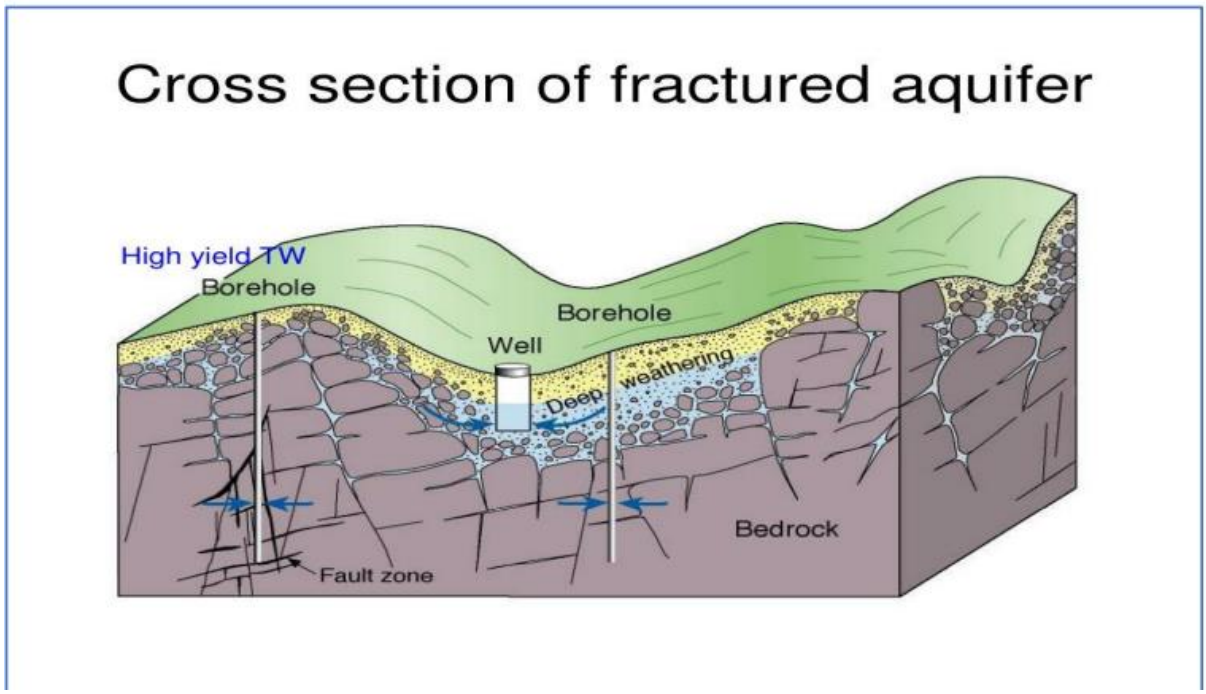


Figure 36:Cross section of a fractured aquifer

Potential contaminants

The potential contaminants for the prospecting of Coal are minimal and can be controlled easily as this activity will only take place for a short period of time. Fuel and oil handling facilities are likely sources of hydrocarbon related contaminants. Oils, grease, and other hydrocarbon products (such as petrol and diesel) handled in these areas may contaminate the environment by spillages and leakages (e.g., from drill rigs). Absorbent Spill kits will be made available near the drill rigs during drilling activities. The oil absorbent chemicals will ensure that no oils infiltrate down to the underground to cause any groundwater contamination.

Figure 37: Example of Absorbent spill kits to be used.

Sumps must be lined with impervious layer, to prevent infiltration of wastewater refer to the Figure 38 below. Sumps must not be allowed to overflow.

Figure 38: Sump lined with impermeable layer.

Drill rig must be placed on top of a plastic to prevent hydrocarbon leaks from infiltrating into the soil.

Figure 39: Drill truck placed on top of a lined plastic to prevent hydrocarbon leak.

10.9 Vegetation (Flora)

Flora is the plant life occurring in a particular region or time, generally the naturally occurring or indigenous—native plant life. Grasslands are dominated by a single layer of grasses (Rutherford & Westfall, 1986). The biome found in the proposed project area is classified as Grassland Biome and the vegetation type that exists in the proposed project area is categorized as Moist Sandy Highveld Grassland which falls in the Grassland Biome.

The dominant vegetation comprises grasses. The amount of cover depends on rainfall and the degree of grazing. The vegetation type is endangered nationally with none conserved and 55% altered, primarily by cultivation. The conservation status of this vegetation type is very poor, with large parts that are either currently cultivated or have been previously ploughed, and the remaining untransformed vegetation that occurs as patchy remnants that are often heavily grazed.

The Highveld grassland has its agriculture severely fragmenting due to the anthropogenic changes. From all the grasslands all over the world, the Highveld grassland now provides the last remaining stronghold of several grassland species that have suffered major reductions in abundance in the grassland biome, and which are consequently threatened with extinction.

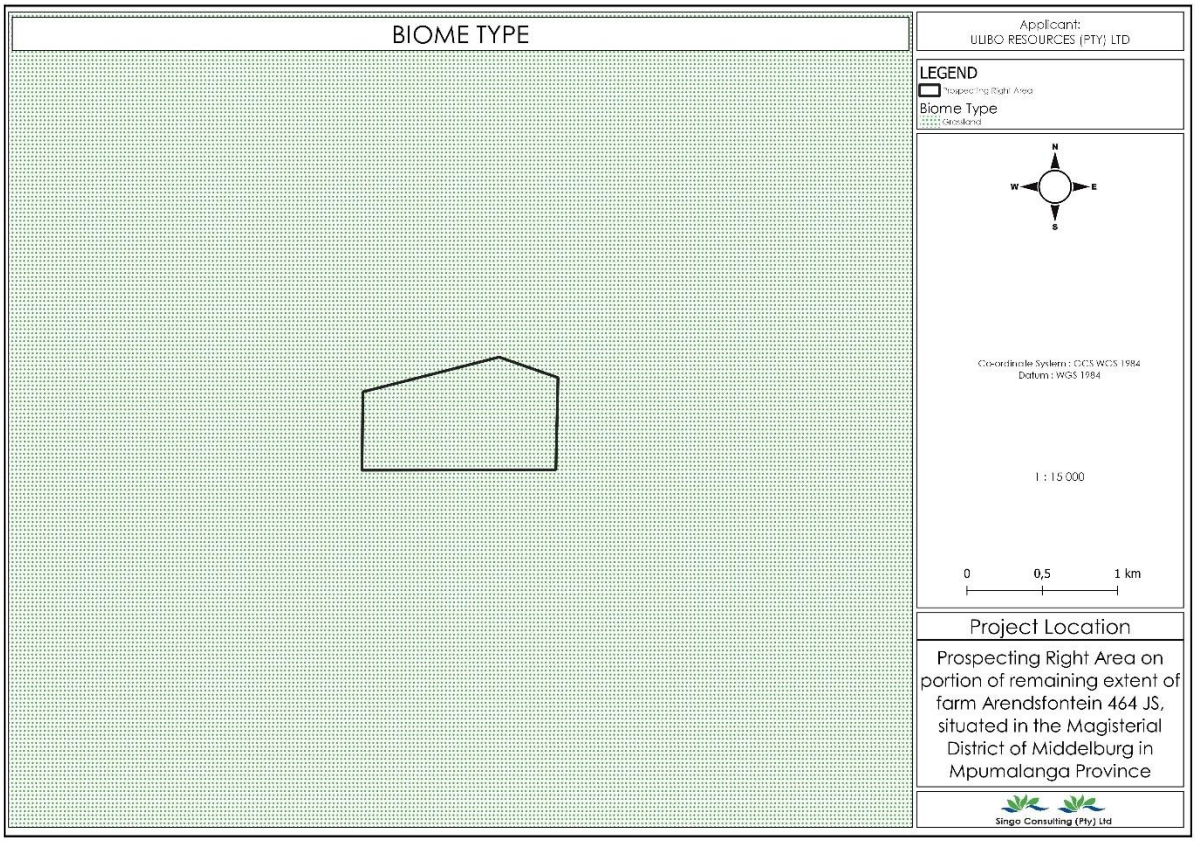


Figure 40: Biome type of the project area.

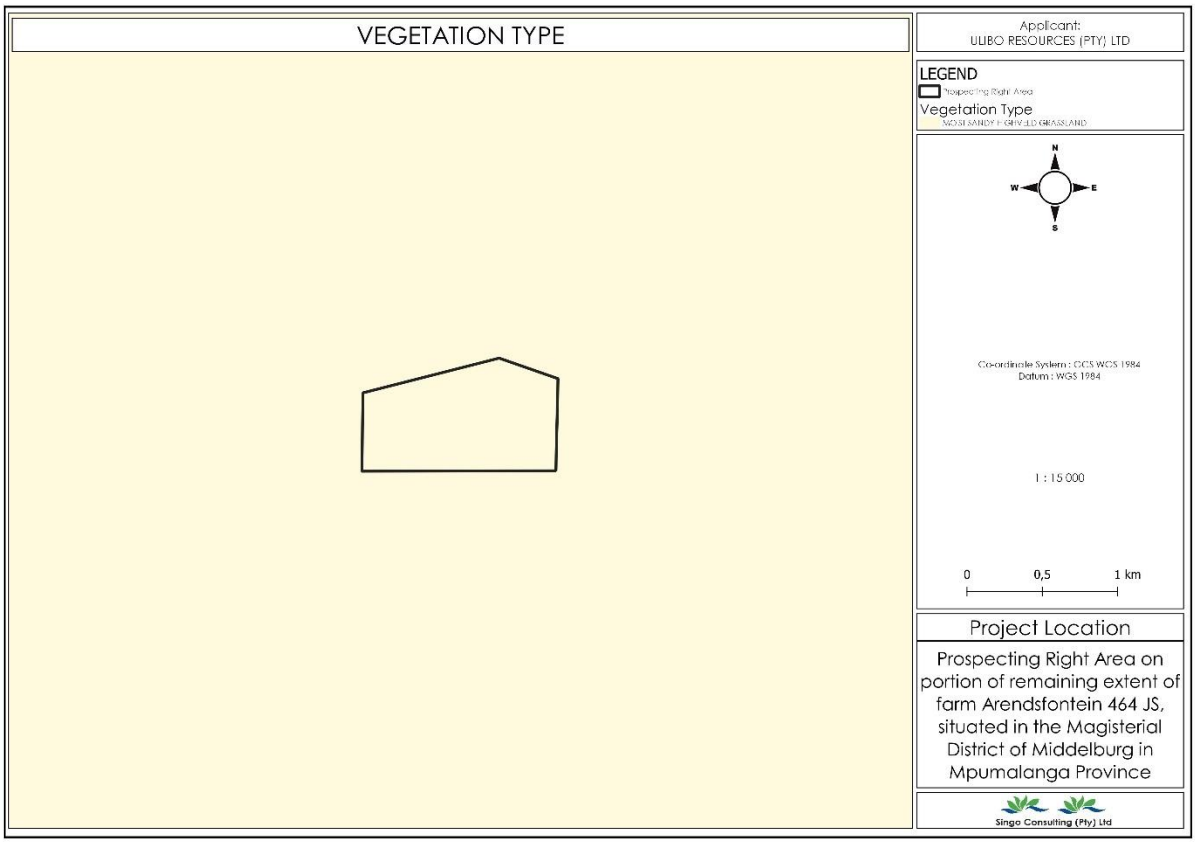
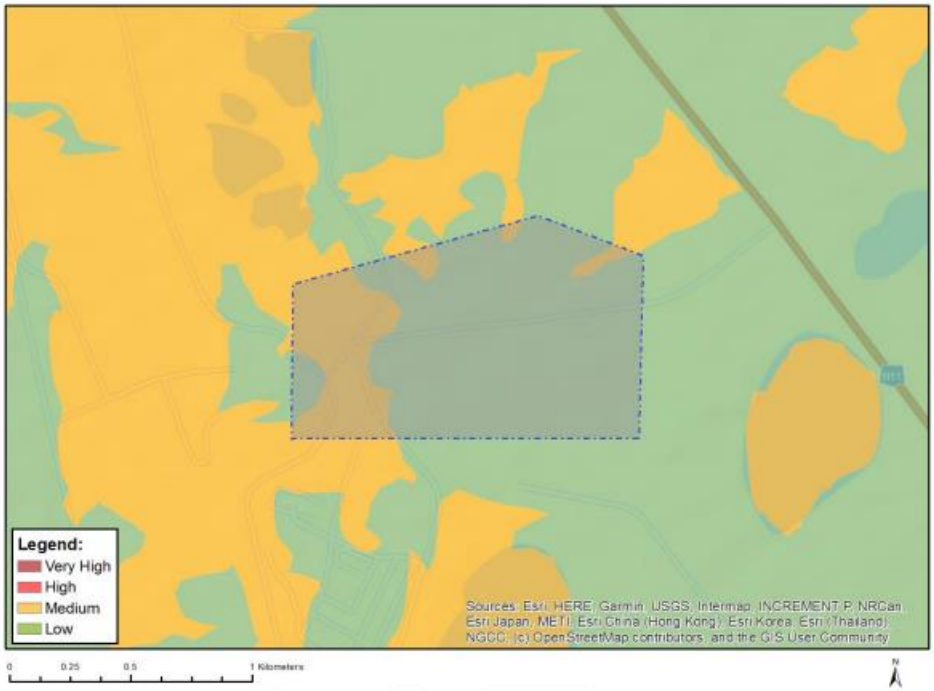


Figure 41: vegetation type of the project area

Figure 42: Vegetation type map of the proposed project area.

The screening report illustrates low sensitive species and medium species within the application area and medium sensitive species are found on the borders of three sides of the project area.

MAP OF RELATIVE PLANT SPECIES THEME SENSITIVITY



Where only a sensitive plant unique number or sensitive animal unique number is provided in the screening report and an assessment is required, the environmental assessment practitioner (EAP) or specialist is required to email SANBI at eiadatarequests@sanbi.org.za listing all sensitive species with their unique identifiers for which information is required. The name has been withheld as the species may be prone to illegal harvesting and must be protected. SANBI will release the actual species name after the details of the EAP or specialist have been documented.

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		X	

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low Sensitivity
Medium	Sensitive species 1200
Medium	Sensitive species 41
Medium	Sensitive species 691
Medium	Pachycarpus suaveolens

Figure 43: Relative plant species sensitivity map (source: screening report)

10.10 Biodiversity

Biodiversity describes the variety of life in an area including the number of different species, the genetic wealth within each species, the interrelationships between them and the natural areas in which they occur. Critical Biodiversity Areas (CBA) are areas required to meet biodiversity targets for ecosystems, species, and ecological processes, as identified in a systematic biodiversity plan. Ecological Support Areas (ESA) are not essential for meeting biodiversity targets but play an important role in supporting the ecological functioning of Critical Biodiversity Areas and/or in delivering ecosystem

services. According to the MBSP Terrestrial 2019 Map, the proposed prospecting site covers Heavily modified, moderately modified- old lands and Other Natural Areas.

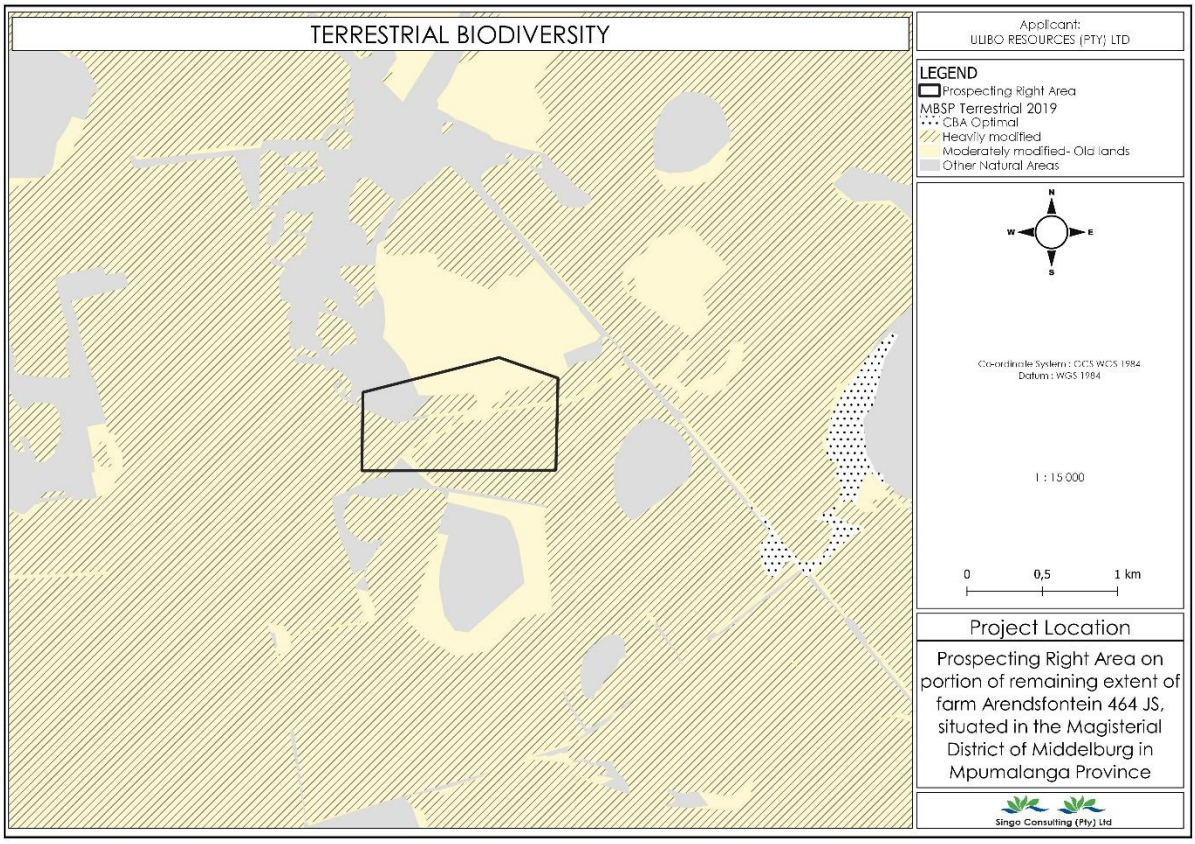
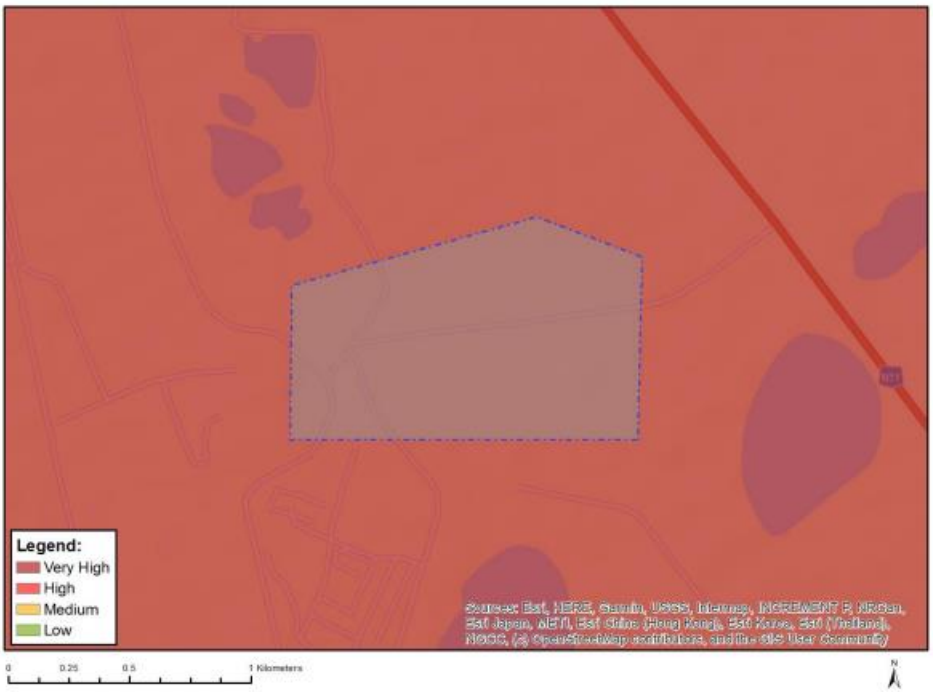


Figure 44: Terrestrial biodiversity of the project area.

The screening report that has been developed revealed that the proposed prospecting area has a very high sensitivity of Vulnerable ecosystem (seen in figure below).

MAP OF RELATIVE TERRESTRIAL BIODIVERSITY THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

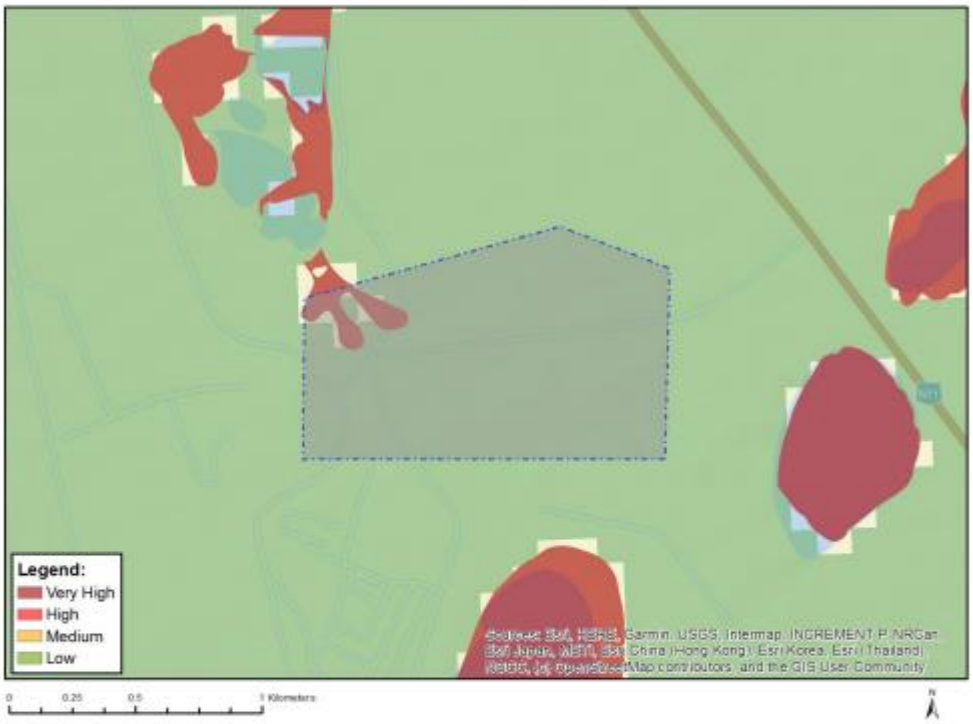
Sensitivity Features:

Sensitivity	Feature(s)
Very High	Vulnerable ecosystem

Figure 45: Relative Terrestrial Biodiversity (Screening Report)

The prospecting is located approximately 300 and 500 m away from wetlands. And the screening report done has shown low sensitivity and very high sensitivity of wetlands and Estuaries (see figure below).

MAP OF RELATIVE AQUATIC BIODIVERSITY THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low sensitivity
Very High	Wetlands and Estuaries

Figure 46; Relative Biodiversity Theme Sensitivity map of the project area (Source: screening report)

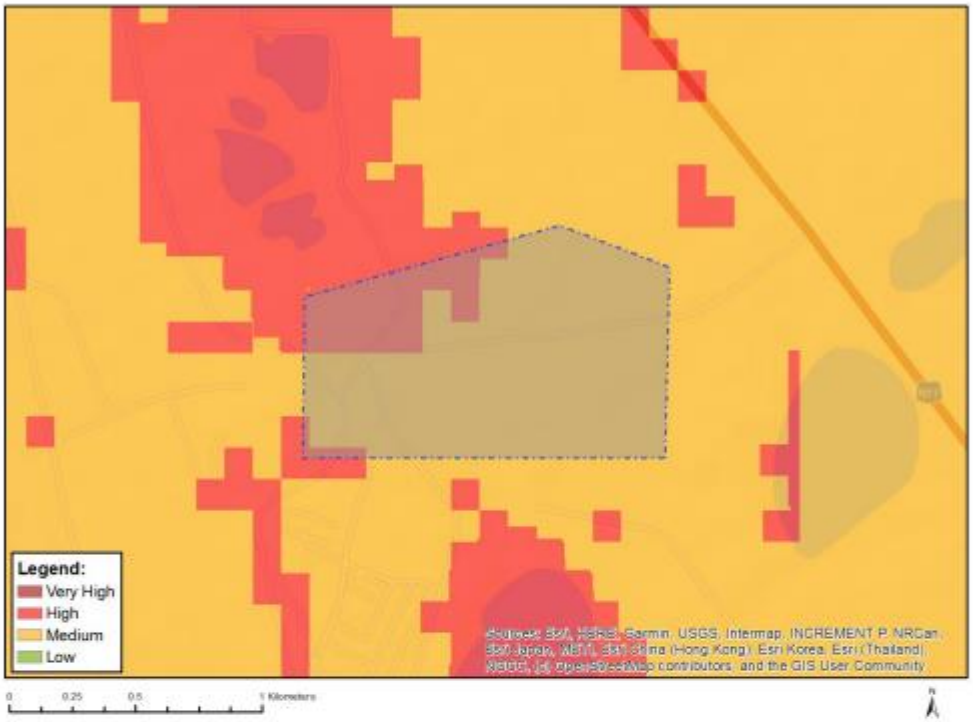
10.11 Animal life (Fauna)

Fauna is all the animal life present in a particular region or time. Fauna was observed during ground truthing. Due to the nature of the area along with its natural vegetation it has the potential to support animals. Cows were observed during a site assessment done on the 22nd of March 2023.

Figure 47: Cattle observed during site assessment.

With reference to the Map of Relative Animal Species theme sensitivity above sourced from the screening report, the proposed project area has an Animal Species combined sensitivity of high sensitivity with features including, Aves-Tyto capensis, Aves-Circus ranivorus, Aves-Eupodotis senegalensis, Aves-Mycteria ibis and medium sensitivity with features including, Aves-Hydroprogne caspia, Aves-Sagittarius serpentarius, Mammalia-Chrysospalax villosus, Mammalia-Crocidura maquassiensis, Mammalia-Hydrictis maculicollis and Mammalia-Ourebia ourebi ourebi.

MAP OF RELATIVE ANIMAL SPECIES THEME SENSITIVITY



Where only a sensitive plant unique number or sensitive animal unique number is provided in the screening report and an assessment is required, the environmental assessment practitioner (EAP) or specialist is required to email SANBI at eiadatarequests@sanbi.org.za listing all sensitive species with their unique identifiers for which information is required. The name has been withheld as the species may be prone to illegal harvesting and must be protected. SANBI will release the actual species name after the details of the EAP or specialist have been documented.

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
	X		

Sensitivity Features:

Sensitivity	Feature(s)
High	Aves-Tyto capensis
High	Aves-Circus ranivorus
High	Aves-Eupodotis senegalensis
High	Aves-Mycteria ibis
Medium	Aves-Hydroprogne caspia
Medium	Aves-Sagittarius serpentarius
Medium	Mammalia-Chrysospalax villosus
Medium	Mammalia-Crocidura maquassiensis
Medium	Mammalia-Hydrictis maculicollis
Medium	Mammalia-Ourebia ourebi ourebi

Figure 48: Map of relative animal species theme sensitivity (source: screening report)

11.12 Heritage Resources

With reference to National Heritage Resources Act 25 of 1999, heritage resources refer to any place or object of cultural significance this could be buildings, monuments, landscapes, and artefacts. These resources are relatively permanent, though somewhat very tenuous, environmental features; if they are present, their integrity is highly susceptible to construction and ground disturbance activities like prospecting and mining activities.

With reference to a Map of Relative Archaeological and Cultural Heritage theme sensitivity below sourced from the screening report, the proposed project area has a low theme sensitivity of Archaeological and Cultural Heritage Resource. During site assessment no heritage resources was observed on site. Should it happen that any heritage resource is missed, and they happen to unfold during the operation of prospecting activities, SAHRA will be contacted and 100m buffers will be applied to these resources. For this project SAHRIS was consulted.

MAP OF RELATIVE ARCHAEOLOGICAL AND CULTURAL HERITAGE THEME SENSITIVITY

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low sensitivity

Figure 49: Relative Archaeological and Cultural Heritage theme sensitivity map (Source: Screening report)

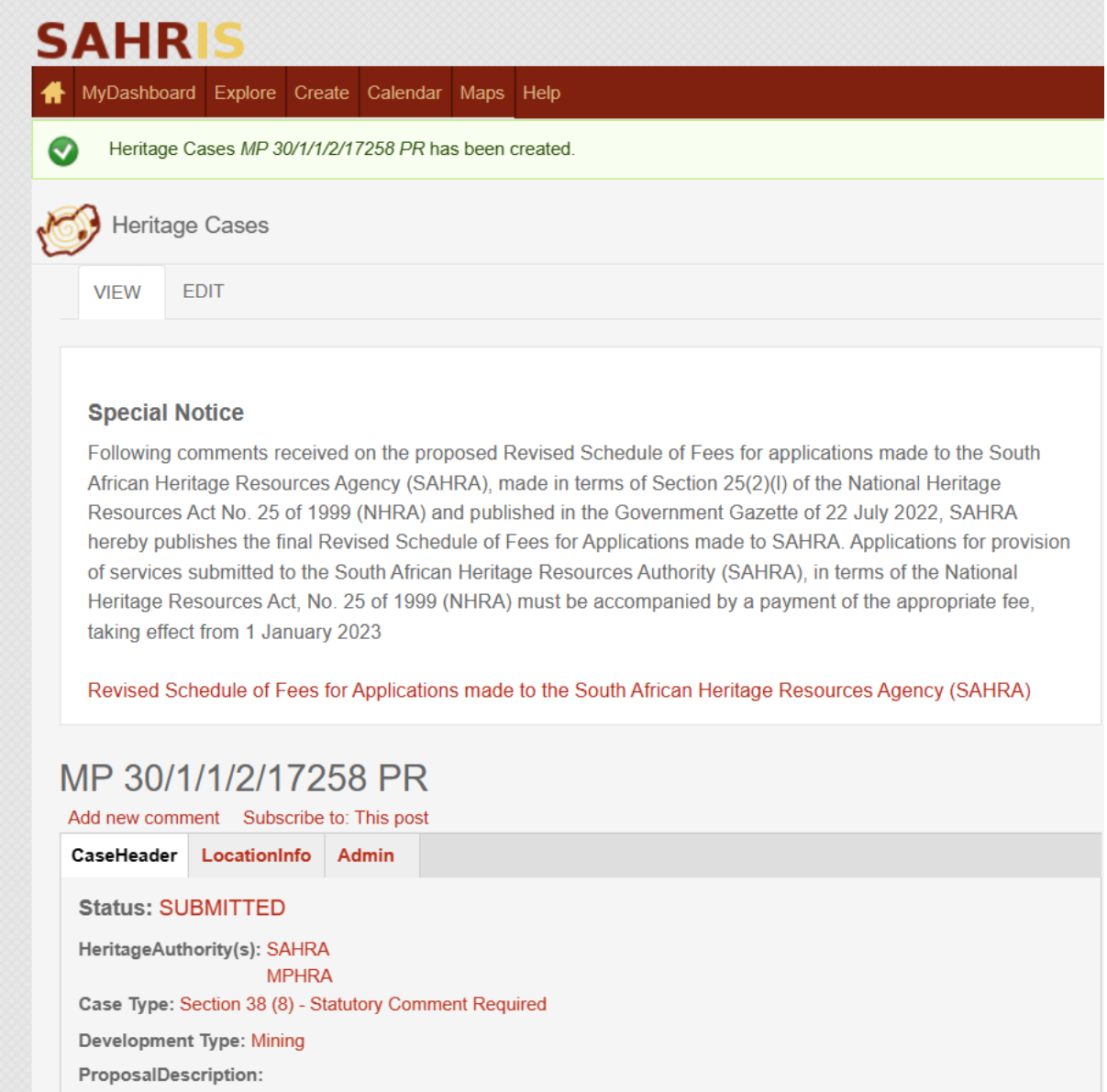


Figure 50: proof of online consultation with SAHR

10.13 Air quality

The assessment of the ambient air quality is based on available ambient air quality information identified in the literature review and data supplies by the Department of Environmental Affairs (DEA) and the South African Weather Service (SAWS).

Regional Ambient Air Quality

In terms of Section 24 of the Constitution, as well as the National Environmental Air Quality Act (AQA, 2004), government is enjoined to ensure that South Africans are breathing air that is not harmful to their health and wellbeing. Mpumalanga experiences a wide range of both natural and anthropogenic sources of air pollution ranging from veld fires to industrial processes, agriculture, mining activities, power generation, paper and pulp processing, vehicle use and domestic use of fossil fuels. Different pollutants are associated with each of the above activities, ranging from volatile organic compounds and heavy metals to dusts and odours.

The prospecting area is in the Mpumalanga Highveld Priority Area which has been declared by the Minister of Environment and Tourism in terms of section 18 (1) and 57 (1) of the National Environmental Management: Air Quality Act, No. 39 of 2004.

Ambient air quality in Mpumalanga is strongly influenced by regional atmospheric movements, together with local climatic and meteorological conditions. The most important of these atmospheric movement routes are the direct transport towards the Indian Ocean and the recirculation over the sub-continents (Scholes, 2002). It is these climatic conditions and circulation movements that are responsible for the distribution and dispersion of air pollutants within Mpumalanga and between neighbouring provinces and countries bordering South Africa.

Mpumalanga experiences distinct weather patterns in summer and winter that affect the dispersal of pollutants in the atmosphere. In summer, unstable atmospheric conditions result in mixing of the atmosphere and rapid dispersion of pollutants. Summer rainfall also aids in removing pollutants through wet deposition. In contrast, winter is characterized by atmospheric stability caused by a persistent high-pressure system over South Africa. This dominant high-pressure system results in subsidence, causing clear skies and a pronounced temperature inversion over the Highveld. This inversion layer traps the pollutants in the lower atmosphere, which results in reduced dispersion and a poorer ambient air quality. Preston-Whyte and Tyson (1988) describe the atmospheric conditions in the winter months as highly unfavourable for the dispersion of atmospheric pollutants.

Plumes emitted at night from stacks during stable conditions can be transported up to thousands of kilometres downwind of the source before reaching ground level in a well diluted state. During daytime however, strong convection currents transport plumes upward and downward whilst drifting downwind (Mpumalanga State of Environment report, 2003). Pollutants thus reach ground level close to the point source of emission and are well diluted due to convective mixing (Turner, 2001). Emissions at low levels (such as from mine residue deposits, households, or vehicles) do not disperse

much at night because of the atmospheric stability, resulting in high concentrations of pollutants at ground level despite the relatively low emissions quantities. During the day, these low-level emissions are readily mixed into the convective layer close to the earth's surface (Turner, 2001), which results in lower concentrations of pollutants at ground level and better air quality.

Noise

Prospecting and related activities frequently produce high levels of noise, which can become a nuisance or a health hazard if not adequately controlled. This has the potential to affect not just the prospecting area, but also the nearby land users and occupiers. The landowners and lawful occupiers of the study area, as well as neighbouring communities including land users and permanent on-site offices and villages, have been identified as the most sensitive receptors for the project area. Agricultural and residential land uses predominate in the surrounding area. The activities taking place such as, animal farming, maize farming and office site taking place withing the prospecting area already contributes to the levels of noise.

Noise generation can be expected on the proposed site because of a variety of activities & actions, such as loading and off-loading of moveable infrastructure during the rather operational phase and vehicles moving in and out of the project area. The area in its entirety is natural also used for agricultural purposes. There are homesteads scattered on neighbouring farms who are the closest sensitive receptors. These sensitive receptors are approximately 1 km from the boundaries of the project area. Due the homesteads' proximity to prospecting activities, mitigation measures must be implemented. Mitigation techniques may include limiting noisy operations to typical working hours rather than weekends or holidays, as well as maintaining machinery and vehicles to prevent excessive noise. It is also recommended that consultations be held with affected parties to establish an acceptable schedule of noisy activities.

10.14 SOCIO-ECONOMIC

The socio-economic analysis is specifically aimed at spatial related matters, i.e., employment, income, and economic profile. This analysis is based on a municipal level to give a broader overview of the Municipality.

The proposed Prospecting Project is located within the Magisterial District of Middleburg under the jurisdiction of the Steve Tshwete Local Municipality, situated within the Nkangala District Municipality. See Figure 53 for ease of reference.

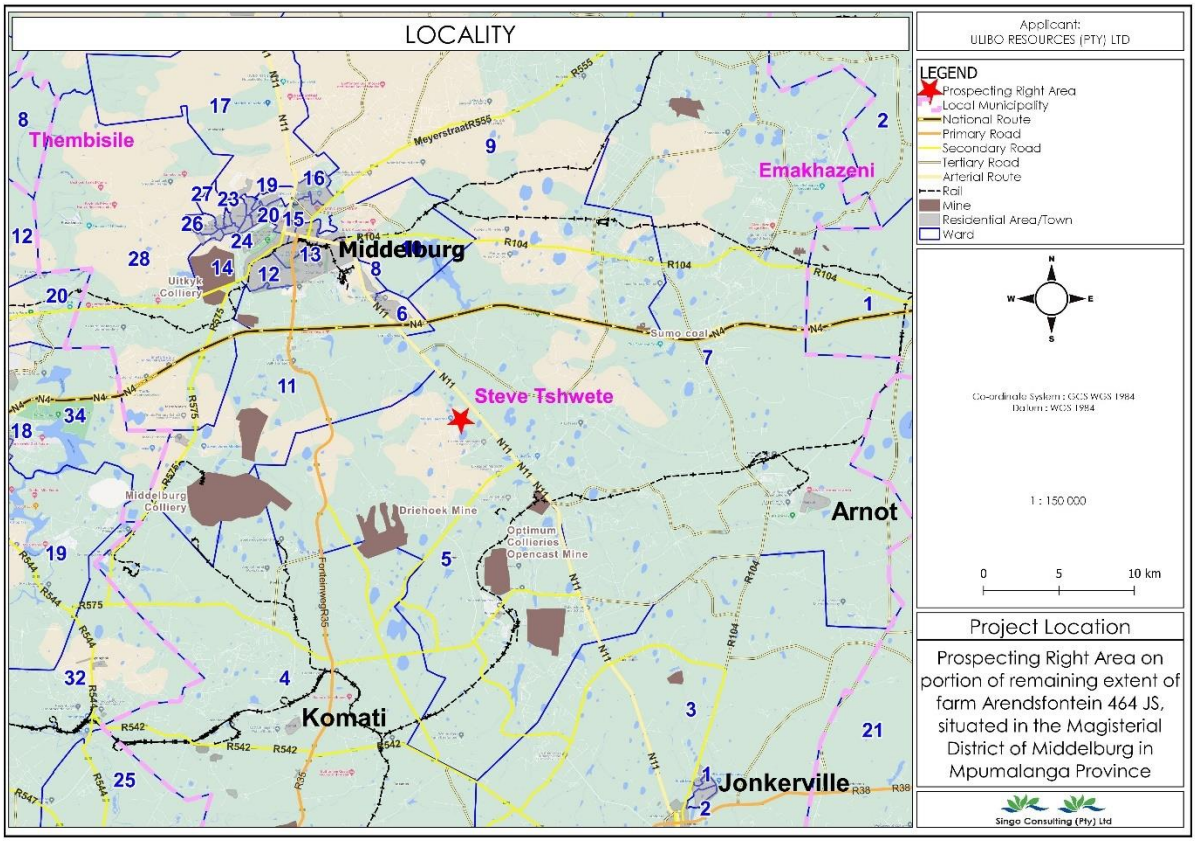


Figure 51: Locality Map of the project area.

11.14.1 DEVELOPMENT AND INCOME PROFILE.

- Poverty rate.

According to SERO 2014, STLM has the lowest poverty rate in the province. The poverty rate is at 20.7% in 2011 showing a decreasing trend from 31.6% in 2001 and 28.8% in 2007. STLM, with about 59 929 people living below the poverty income in 2011, had the lowest number of people in poverty.

Table 14: Poverty in STEVE TSHWETE 2001, 2011, 2014

INDICATORS	2001	2011	2014
Poverty rate	31.6%	25.9%	20.7%
Number of people in poverty	48 865	59 929	49 014
Poverty gap (R million)	R54	R110	

Statistics South Africa Census 2001 and 2011 and SERO 2014

- Unemployment

The pattern of overall unemployment rate in STLM has dramatically changed from 35.4% in 2001 to 19.7% in 2011 as seen from the table below. Therefore, unemployment rate is 19.7% in STLM (Census 2011). In the municipality, 107 069 people are economically active people. The composite breakdown of unemployment in STLM shows youth unemployment rate of 27.1%, unemployment rate for females 27.8% and males 14.2% (Census 2011).

Table 15: Employment status 2001 and 2011

LABOUR INDICATORS	CENSUS 2001	CENSUS 2011
Employment		
Economically Active Population (EAP) /Labour Force	64 474	107 069
Number of employed	41 679	85 968
Unemployment		
Number of unemployed	22 795	21 101
Official Unemployment rate (%)	35.4%	19.7%
Unemployment amongst people with disabilities	38.0%	
Youth Unemployment	46.1%	26.5%
Woman Unemployment	49.2%	27.8%

Statistics South Africa Census 2001 and 2011

- Human Development Index (HDI)

The Human Development Index (HDI) is a composite, relative index that attempts to quantify the extent of human development of a community. It is based on measures of life expectancy, literacy, and income. According to the United Nations, the HDI is considered high when it is 0.8 and higher,

medium when it ranges between 0.5 to 0.8 and an index value of 0.5 and lower, will be considered as a low rating. STLM's HDI level improved from 0.62 in 2001 to 0.63 in 2007 and to 0.69 in 2011 (SERO, 2013). It is ranked the second best out of eighteen (18) municipalities in the entire province in terms of HDI.

- Gini-Coefficient

The Gini-coefficient is one of the most used measures of income inequality. The Gini-coefficient of STLM shows an improving trend since 2001 from 0.68 to 0.65 in 2007 and to 0.60 in 2011 (SERO, 2013). Despite the decline in 2011, the level still reflects a more unequal income distribution.

- Household income.

According to Census 2011, the average annual household income for all households in STLM increased from R 55 369 per annum in 2001 to R134 026 per annum in 2011 (table 15). This represents an absolute increase in nominal terms over the 10- year period, which was the highest among the eighteen local municipalities in the province. This is closely related to its higher education levels and employment rates.

Table 16: Average annual household income in STLM

MP313: Steve Tshwete	2001	2011
	55 369	134 026

Source: Statistics SA, Census 2011

- Housing profile

Housing type implies the structure of the dwelling a family occupies as their home. The main categories can be distinguished; these are formal permanent structures, traditional structures and informal non-permanent structures. Table 7 indicates the different dwelling types in the municipal area according to the Census 2011. Table 7 below shows a significant increase in the proportion of households residing in formal dwellings across the municipality, meanwhile there is decline in traditional dwellings. The informal dwellings declined from 1996 to 2001 and showed an upward trend from 2001 to 2011. The availability of suitable land and funding delays place cause a challenge on housing delivery in the municipality.

Table 17: Dwelling types 1996, 2001 AND 2011

Municipality	Formal			Traditional			Informal		
	1996	2001	2011	1996	2001	2011	1996	2001	2011
MP313: Steve Tshwete	24 765	26 776	53 929	2 952	3 516	1 102	12 901	5 937	9 190

Statistics South Africa- Census 1996, 2001 and 2011

Table 16 shows a decline in the proportion of households that own their dwellings. On the other hand, there is an increase in the proportion of households headed by females in 2001 and a decline thereafter.

Table 18: STEVE TSHWETE households dynamics 2001 and 2011

Households		Average household size		Female headed households %		Formal dwellings %		% Housing owned/paying off	
2001	2011	2001	2011	2001	2011	2001	2011	2001	2011
36 229	64 971	3.8	3.5	29.5	29.4	73.9	83.0	57.5	44.5

Statistics South Africa- Census 2001 and 2011

11. ENVIRONMENTAL ASPECTS WHICH MAY REQUIRE PROTECTION AND/OR REMEDIATION.

Wetlands have been identified about 500 m away from the proposed project area. A buffer of 100 m and 500 m has been applied to the water bodies within and around proposed prospecting area. In addition, no drill site will be positioned within any of these watercourses. Furthermore, no drill site will be located within 100 meters of any properties, buildings, or homes located within and around the project area's boundaries. There is a community located about 1 km away from the prospecting project, therefore mitigation measure must be implemented to minimize risks that the project may pose to residents. Existing access roads will be utilised to access the drill sites. Drilling is proposed to

take place along the access roads (of agricultural fields) and if the agricultural fields cannot be avoided, this information must be duly communicated to the affected landowner reach an agreement. Drill sites will overall be aimed at avoiding sensitive areas.

11.1 Description of the current land uses.

Land uses within a 3 km radius are inclusive of the following:

- Built-up area
- Waterbodies
- Wetlands
- Cultivated & natural land.
- Animal farming
- Bare land
- Powerline
- Farms

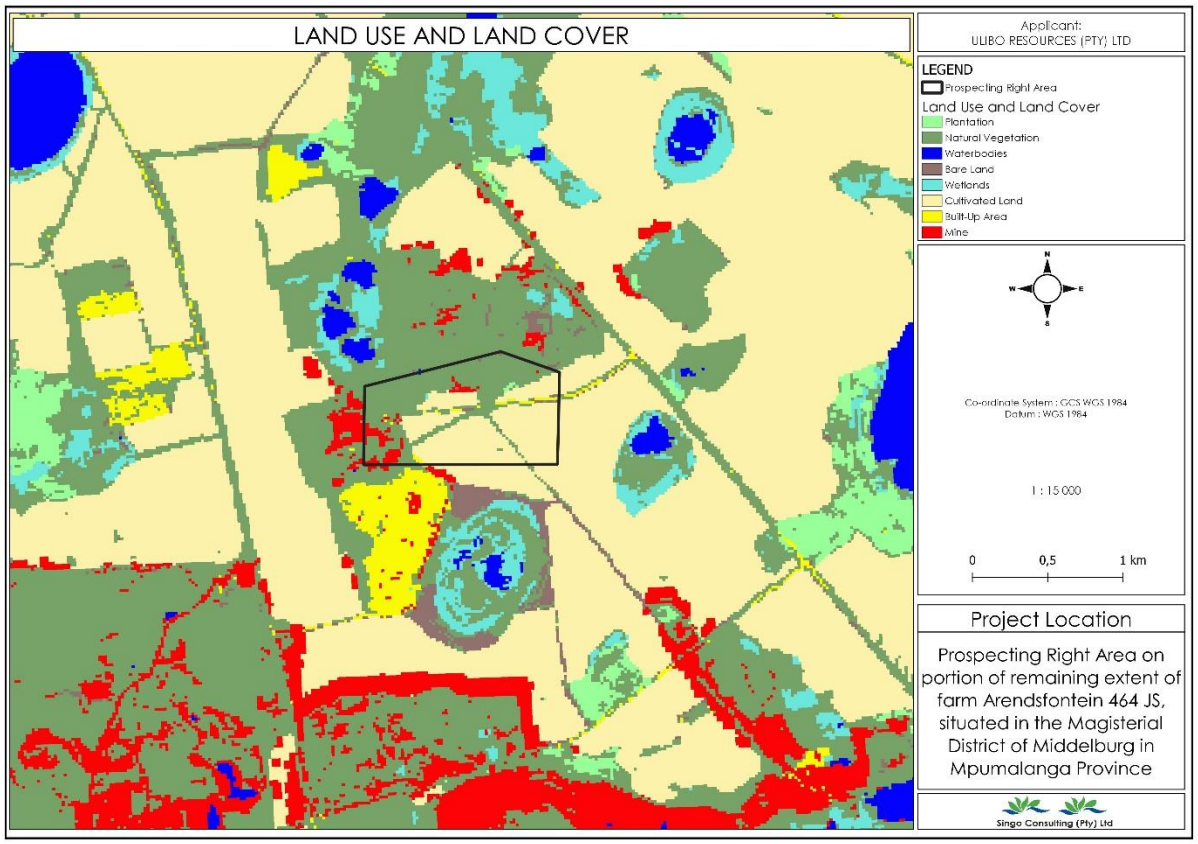
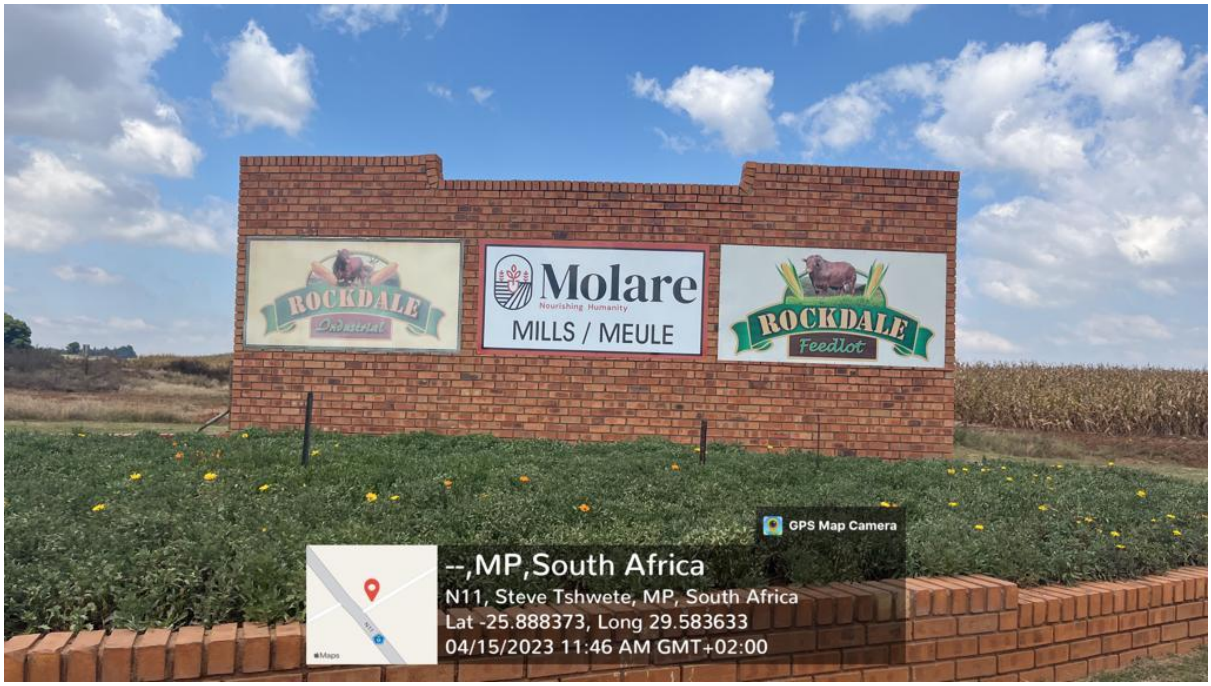
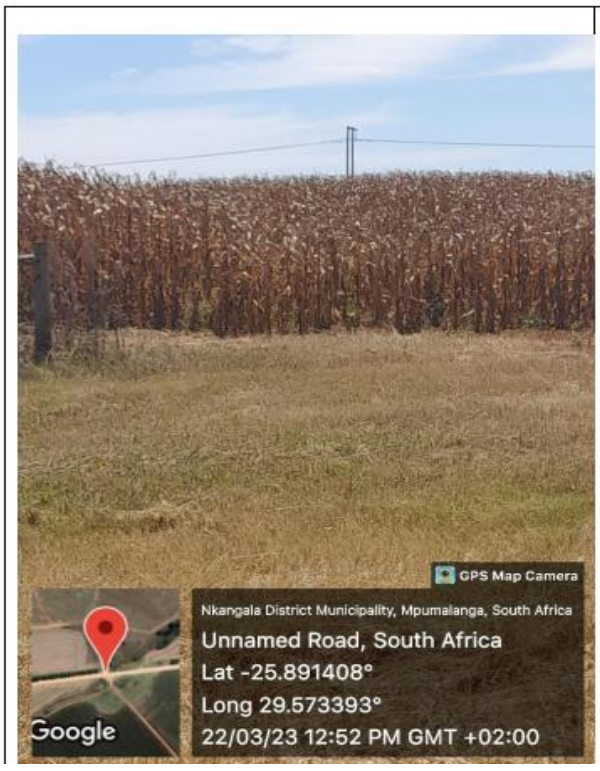


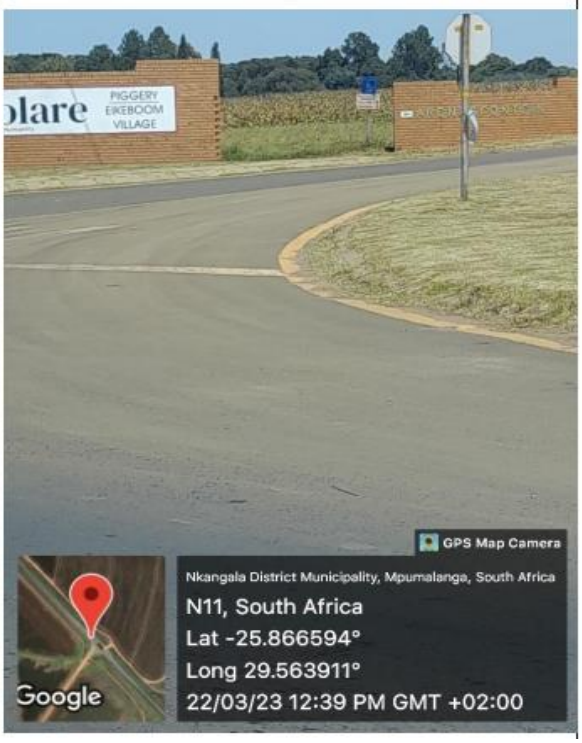
Figure 52: Land use Map of the area of interest.

11.2 Description of specific environmental features and infrastructure on the site.

The application area is served by gravel road which is in reasonable condition. The noticeable environment features and infrastructure on site, includes the agricultural fields, animal farming, office site and powerline and power station within the project site and observed 500 m away from the study area.


ROCKDALE
Molare
Nourishing Humanity
MILLS / MEULE
ROCKDALE
Feedlot
GPS Map Camera
--,MP,South Africa
N11, Steve Tshwete, MP, South Africa
Lat -25.888373, Long 29.583633
04/15/2023 11:46 AM GMT+02:00


GPS Map Camera
Nkangala District Municipality, Mpumalanga, South Africa
Unnamed Road, South Africa
Lat -25.891408°
Long 29.573393°
22/03/23 12:52 PM GMT +02:00
Google


PIGGERY
EIKEBOOM
VILLAGE
GPS Map Camera
Nkangala District Municipality, Mpumalanga, South Africa
N11, South Africa
Lat -25.866594°
Long 29.563911°
22/03/23 12:39 PM GMT +02:00
Google

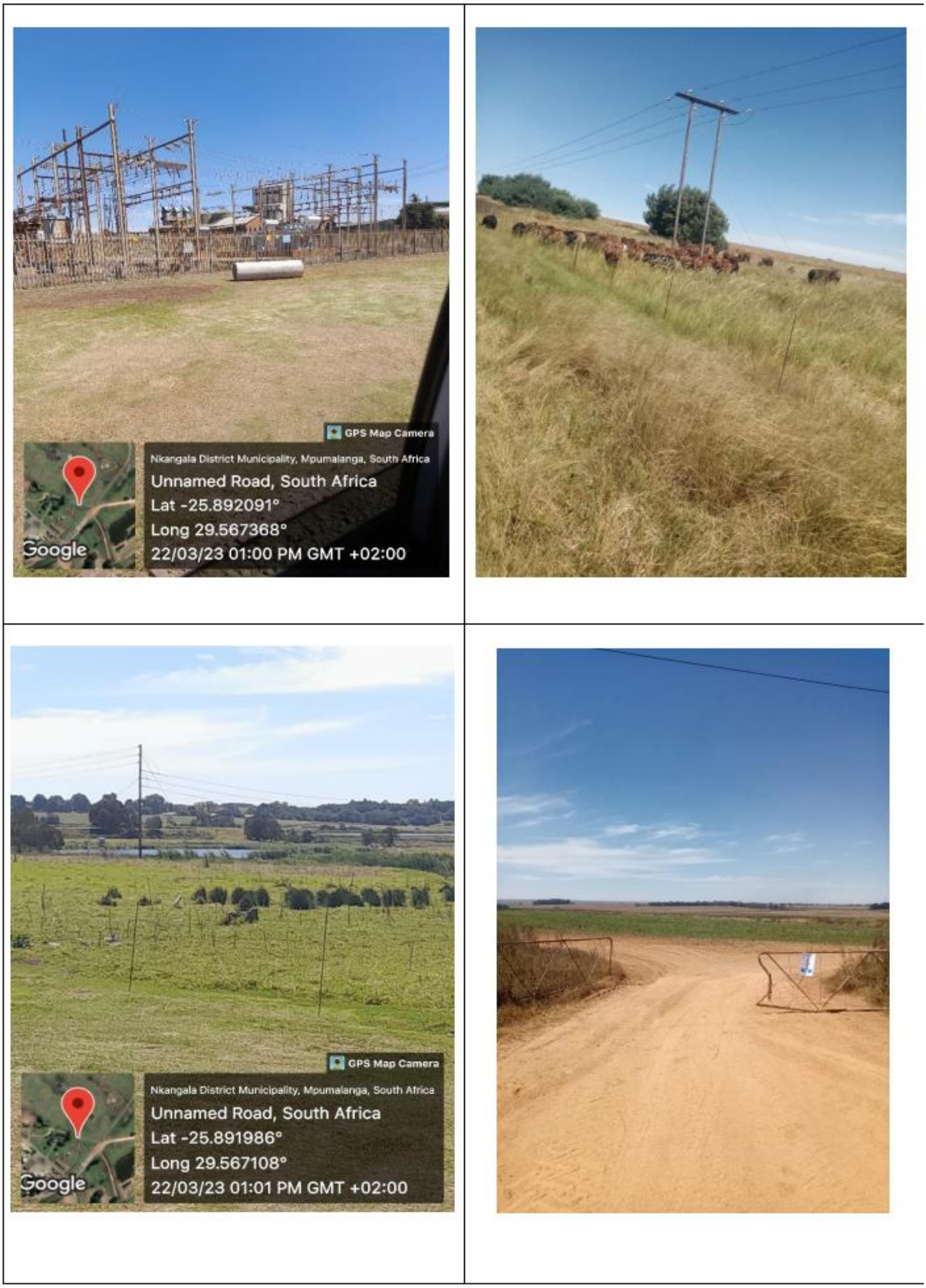


Figure 53: Land use and cover of the proposed prospecting right area. (Singo Consulting (Pty) Ltd , 2023)

Figure 54:Google Earth map.

12. IMPACTS AND RISKS IDENTIFIED INCLUDING THE 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).*

Aspects	Phase	Description of environmental impacts
Legislative	Planning phase	Non-compliance with legislative requirements resulting in non-/delayed commencement of

Aspects	Phase	Description of environmental impacts
		proposed project.
Flora	Site establishment	Destruction/loss of indigenous vegetation and plants of ecological importance due to site establishment activities. Potential spread of alien invader plants/seeds.
Fauna	Site establishment, drilling	• Disturbance of animal • Disturbance of wildlife on neighbouring farms.
Groundwater	Site establishment, drilling	• Potential groundwater contamination due to spillage of fuels, lubricants and other chemicals.
Soils	Site establishment, drilling	Potential soil erosion during site clearance and drilling. Potential soil contamination due to spillages.
Air quality	Site establishment, drilling	Nuisance stemming from smoke emissions generated by vehicles and machinery.
Traffic	Site establishment, drilling	Traffic increase in the area as vehicles access and exit the site.
Noise and dust	Site establishment,	• Nuisance to

Aspects	Phase	Description of environmental impacts
	drilling	surrounding landowners caused by moving vehicles and drill rigs. • Disturbance of animals in surrounding farms.
Economic	Planning phase	Project expenditure (incl. direct capital investment)
Socio-economic	Planning, drilling, and decommissioning	• Potential friction with I&APs and landowners due to disturbance of local businesses. • Potential employment and skills development opportunities. • Potential increase of theft and poaching in the area.
Visual	Site establishment, drilling and decommissioning	Visual disturbances due to machinery, vehicles, signs and drilling rigs.
Cultural/heritage historical	Site establishment, drilling	Potential impact on heritage and archaeological resources. However,

Aspects	Phase	Description of environmental impacts
		there are no known important heritage resources on the site.
Waste generation	Site establishment, drilling	Generation of solid and other waste from ablution facilities.
Veld Fire	Site establishment, drilling and decommissioning	Fire outbreaks during the winter fire season.
Health and safety	Site establishment, drilling and decommissioning	Potential risk to the health and safety of all employees and neighbouring occupants.

13. 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 in order to decide the extent to which the initial site layout needs revision).

The potential environmental impacts associated with the project will be evaluated according to its nature, extent, duration, intensity, probability and significance of the impacts, whereby:

- Nature: A brief written statement of the environmental aspect being impacted upon by particular action or activity.
- Extent: The area over which the impact will be expressed. Typically, the severity and significance of an impact have different scales and as such bracketing ranges are often required. This is often useful during the detailed assessment phase of a project in terms of further defining the determined significance or intensity of an impact. For example, high at a local scale, but low at a regional scale.
- Duration: Indicates what the lifetime of the impact will be.
- Intensity: Describes whether an impact is destructive or benign.
- Probability: Describes the likelihood of an impact actually occurring.
- Cumulative: In relation to an activity, means the impact of an activity that in itself may not be significant but may become significant when added to the existing and potential impacts eventuating from similar or diverse activities or undertakings in the area.

Criteria	Description			
Extent	**National (4)** The whole South Africa.	**Regional (3)** Provincial and parts of neighbouring provinces.	**Local (2)** In a 2 km radius from the prospecting site.	**Site (1)** At the prospecting site.
Duration	**Permanent (4)** Mitigation by man or natural process will not occur in such a way or in such a time span that the impact can be considered transient.	**Long-term (3)** The impact will last for the entire operational life of the development but will be mitigated by direct human action or natural processes thereafter. The only class of impact which	**Medium-term (2)** The impact will last for the period of the site establishment, where after it will be entirely negated.	**Short-term (1)** The impact will either disappear with mitigation or will be mitigated through natural process in a span shorter than the site establishment period.

Criteria	Description			
		will be non-transitory.		
Intensity	**Very High (4)** Natural, cultural and social functions and processes are altered to the extent that they permanently cease.	**High (3)** Natural, cultural and social functions and processes are altered to the extent that they temporarily cease.	**Moderate (2)** Affected environment is altered, but natural, cultural and social functions and processes continue. albeit in a modified way	**Low (1)** Impact affects the environment in a way that natural, cultural and social functions and processes are not affected.
Probability of occurrence	**Definite (4)** Impact will certainly occur.	**Highly Probable (3)** Impact likely to occur.	**Possible (2)** Impact may occur.	**Improbable (1)** Low likelihood of impact materialising.
Impact reversal	**Highly Impossible (4)** Impact reversal certainly impossible.	**Moderate (3)** Impact can be reversed to some extent with loss of natural resources.	**Possible (2)** High possibility of impact reversal.	**Definite (1)** Impact can be totally reversed.
Loss of irreplaceable resources	**Definite (4)** Resources definitely be lost.	**Highly Probable (3)** Resources likely to be lost.	**Possible (2)** Resources may be lost.	**Improbable (1)** Loss of resources is highly unlikely.

Significance is determined through a synthesis of impact characteristics. It is an indication of the importance of the impact in terms of physical extent and time scale, and therefore indicates the level of mitigation required. The total number of points scored for each impact indicates the impact's significance.

Significance=Extent+ Duration +Intensity x Probability

Table 19: Criteria for rating classified impacts.

Low impact/minor (3-10 points)	A low impact has no permanent impact of significance. Mitigation measures are feasible and readily instituted as part of site establishment and drilling procedures.
Medium impact/moderate (11-20 points)	Mitigation is possible with additional inputs.
High impact (21-30	Site design may be affected. Mitigation and possible remediation are needed during site establishment and drilling. Impact may affect the

points)	broader environment.
Very high impact/major (31-48 points)	Permanent and important impacts. Site design may be affected. Intensive remediation is needed during site establishment and drilling. Any activity resulting in a "very high impact" is likely to be a fatal flaw.
Status	Perceived effect of the impact on the affected area.
Positive (+)	Beneficial impact.
Negative (-)	Deleterious or adverse impact.
Neutral (/)	Impact is neither beneficial nor adverse.
It is important to note that the status of an impact is assigned based on the status quo – i.e. should the project not proceed. Therefore, not all negative impacts are equally significant.	

The suitability and feasibility of all proposed mitigation measures is included in the assessment of significant impacts. This was achieved through the comparison of the significance of the impact before and after implementation of the proposed mitigation measure.

14. 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.

There is no alternative project layout. Should comments be received that warrant changing site layout, Ulibo Resources (Pty) Ltd will implement the necessary changes to ensure that no one is negatively affected. The drilling of (at least) five exploration holes will have a minimal environmental and social impact as the drill site will cover only about 0.9 ha (600m2) of the property. The identified impacts will only occur for a limited time and be localised. These impacts can be suitably mitigated; residual impact ratings are of low significance. After drilling has been completed and drill pads rehabilitated to pre-drilling status, the impacts will cease.

Table 20: Positive and negative impacts.

Impacted environment	Impact	Impact status
Planning phase		
Legislative	Non-compliance with legislative requirements resulting in non-/delayed commencement of proposed project.	Negative
Economic	Project expenditure (incl. direct capital investment).	Negative/positive
Site establishment		

Impacted environment	Impact	Impact status
Fauna and flora	Destruction/loss of indigenous vegetation and plants of ecological importance due to site establishment activities.	Negative
	Disturbance of animal and bird species at the proposed site.	Negative
	Disturbance of wildlife on neighbouring game farms.	Negative
	Potential spread of alien invader plants/seeds.	Negative
Groundwater	Potential groundwater contamination due to fuel, lubricant and chemical spills.	Negative
Air quality	Nuisance stemming from vehicle emissions.	Negative
Noise and dust generation	Nuisance to surrounding landowners caused by moving vehicles and drill rigs.	Negative
	Disturbance of wildlife on neighbouring game farms.	Negative
Soils	Potential soil erosion during site establishment.	Negative
	Potential soil contamination due to spillages.	Negative
Socio-economic	Potential employment and skills development opportunities.	Positive
Visual aspect	Visual disturbance due to machinery, vehicles, signs and drill rigs.	Negative
Cultural/heritage-historical resources	Potential impact on heritage and archaeological resources.	Positive/negative
Waste generation	Generation of solid and other waste from ablution facilities.	Negative
Traffic	Increase of traffic in the area as vehicles access the sites.	Negative
Socio-economic	Potential increase of theft and poaching in the area.	Negative
	Potential friction with I&APs and landowners due to disturbance of local businesses.	Negative
Health and safety	Potential risk to the health and safety of employees and neighbouring occupants.	Negative
Drilling phase		
Fauna and flora	Destruction/loss of indigenous vegetation and plants of ecological importance due to site establishment activities.	Negative
	Disturbance of animal and bird species at the proposed site.	Negative
	Disturbance of wildlife on neighbouring game farms.	Negative
	Potential spread of alien invader plants/seeds.	Negative
Soils	Potential soil erosion during drilling.	Negative
	Potential soil contamination due to spillages.	Negative
Socio-economic	Potential friction with I&Aps and landowners due to disturbance of local businesses.	Negative
	Potential increase of theft and poaching in the area.	Negative
	Potential employment and skills development opportunities.	Positive
Groundwater	Potential groundwater contamination due to fuel, lubricant	Negative

Impacted environment	Impact	Impact status
	and chemical spills.	
	Potential occurrence of drawdown due to borehole drilling.	Negative
Geology	Removal of rock material for logging and sampling during drilling.	Negative
Noise and dust generation	Nuisance to surrounding landowners caused by moving vehicles and drill rigs.	Negative
	Disturbance of wildlife on neighbouring game farms.	Negative
Cultural-historical resources	Potential impact on heritage and archaeological resources.	Positive/negative
Air quality	Nuisance from vehicle and machine emissions.	Negative
Socio-economic	Potential increase of theft and poaching in the area.	Negative
Health and safety	Potential risk to the health and safety of employees and neighbouring occupants.	Negative
Decommissioning		
Air quality	Nuisance from vehicle and machine emissions.	Negative
Noise and dust generation	Nuisance to surrounding landowners caused by moving vehicles and drill rigs.	Negative
	Disturbance of wildlife on neighbouring game farms.	Negative
Traffic	Increased traffic in the area as vehicles exit the site.	Negative
Socio-economic	Potential friction with I&APs and landowners due to disturbance of local businesses.	Negative
	Potential increase of theft and poaching in the area.	Negative
Health and safety	Potential risk to the health and safety of employees and neighbouring occupants.	Negative

15. 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).

See Table 19 for possible mitigation measures to address issues related to the proposed project and raised by I&Aps.

15.1 Impact significance

The impact magnitude and significance rating are used to rate each identified impact in terms of its overall magnitude and significance.

Table 21: Impact magnitude and significance rating.

Unit	Activity	Aspect	Impact	Significance rating before mitigation measures									Mitigation measures
				I	F	D	E	P	S	C	IS	Significance	
		Topography and visual environment	• Topography changes and disruption of surface water flow. • Soil erosion and topsoil loss. • Visual impact caused by vegetation and topsoil removal.	3	3	4	1	0,8	3,3	2,2	1,7	Low	• Only clear vegetation and topsoil when necessary and in demarcated areas. • Vegetate topsoil stockpiles as soon as possible. • Contour topsoil stockpiles to a steepness of less than 18° to prevent slope failure and erosion, and aid in vegetation establishment. • Vegetate topsoil stockpiles kept for more than a year to sustain ecological components and prevent dust emissions and alien vegetation.
		Soil	• Soil contamination and degradation during soil stripping and management. • Soil erosion and dust generation.	3	4	4	1	0,8	3,7	2,3	1,9	Low	• Limit excavation and long-term soil stockpiling in demarcated areas. • Clearly and permanently demarcate and locate stockpiles (especially topsoil) in no-go areas. • Restrict mechanical handling; each handling increases compaction and soil structure changes. • Conduct soil stripping in line with a topsoil stripping plan. • Stockpile different soils separately (if possible) to obtain highest post-mining land capability.

Unit	Activity	Aspect	Impact	Significance rating before mitigation measures									Mitigation measures
				I	F	D	E	P	S	C	IS	Significance	
													• Revegetate stockpiles to establish vegetation cover as an erosion control measure. Keep these stockpiles free of alien vegetation to prevent loss of soil quality. • Construct temporary berms around stockpile areas where vegetation cover is not yet established, to avoid soil loss through erosion.
			Soil compaction	4	5	4	1	1,0	4,3	2,7	2,7	Moderate	• If possible, schedule vegetation clearance and commencement of mining activities (haul road construction) to coincide with low rainfall conditions when soil moisture is anticipated to be relatively low, to reduce soil compaction. • Limit heavy vehicle movement to existing roads and areas where haul roads are constructed.
			Loss of land capability and land use potential	2	1	4	1	0,8	2,3	1,7	1,3	Low	• Rip compacted soils to alleviate compaction. • Replace stored topsoil (if any) and grade the footprint to a smooth surface. • Backfill and reprofile landscape to mimic the natural topography for

Unit	Activity	Aspect	Impact	Significance rating before mitigation measures									Mitigation measures
				I	F	D	E	P	S	C	IS	Significance	
													potential agricultural activities and grazing opportunities post-mining. If possible, ensure continuation of the pre-mining surface drainage pattern. • Slopes of the backfilled surface should change gradually since abrupt changes in slope gradient increase susceptibility to erosion. • Determine soil fertility status through soil chemical analysis after levelling (before seeding/re-vegetation). • Complete soil amelioration, if needed, according to soil specialist recommendations, to correct pH and nutrition status before revegetation.
			Loss of vegetation communities	4	1	5	1	0,8	3,3	2,2	1,7	Low	• Restrict site clearing to the footprint of the designated areas to limit degradation and destruction of natural habitats. • Vegetate open and exposed areas to prevent soil erosion and establishment of alien invasive vegetation. • Restrict access and avoid identified faunal and floral SSC, adjacent to mining activities.

Unit	Activity	Aspect	Impact	Significance rating before mitigation measures									Mitigation measures
				I	F	D	E	P	S	C	IS	Significance	
													• No deforestation in a CBA: Irreplaceable area (southern section of the permit). • Rescue and relocate important plant species. • Restrict access and avoid sensitive landscapes, like wetlands and ridges, adjacent to mining operations. • Stockpile topsoil to be used for rehabilitation according to the rehabilitation plan. Compaction of stockpiled topsoil must be avoided to ensure seed bank viability.
			Influx and establishment of alien invasive vegetation.	3	3	4	2	0,8	3,3	2,7	2,1	Moderate	• Identify and remove alien invasive vegetation to throughout the project.
		Wetlands and aquatic ecology	Sedimentation of wetland areas downstream of the stockpiles.	3	3	4	1	0,8	3,3	2,2	1,7	Low	• Implement and maintain soil management programme to minimise erosion and sedimentation. • Actively rehabilitate, re-slope, and re-vegetate disturbed areas immediately after construction. • Implement and maintain alien vegetation management programme. • Provide appropriate sanitary facilities for the duration of construction

Unit	Activity	Aspect	Impact	Significance rating before mitigation measures									Mitigation measures
				I	F	D	E	P	S	C	IS	Significance	
													activities and move all waste to an appropriate waste facility.
			Contamination of soils as a result of the ingress of hydrocarbons	3	5	4	1	1,0	4,0	2,5	2,5	Moderate	• Implement and maintain soil management programme to minimise erosion and sedimentation. • Actively rehabilitate, re-slope, and re-vegetate disturbed areas immediately after construction. • Implement and maintain alien vegetation management programme. • Limit construction activity footprint to what is essential to minimise impacts as a result of vegetation clearing and compaction of soils. • Remedy erosion in the construction footprint immediately, as part of ongoing rehabilitation. • All delineated watercourses and their associated 100 m zones of regulation in terms of GN704 should be designated as "No-Go" areas and be off-limits to all unauthorised vehicles and personnel, with the exception of approved construction and operational areas unless authorised as part of the IWUL.

Unit	Activity	Aspect	Impact	Significance rating before mitigation measures									Mitigation measures
				I	F	D	E	P	S	C	IS	Significance	
													• No unnecessary crossing of watercourses. Use existing infrastructure if possible. • Install suitable culverts under road crossings where watercourses may be crossed. • The number of culverts installed should be suitable for the gradient, width and flow profiles of the watercourses being crossed to avoid upstream inundation, erosion and incision, and alterations to the natural channel. • Crossings should use existing roads where possible and use/be constructed downgradient of barriers associated with impoundments on affected systems. • No material may be dumped or stockpiled in delineated watercourses. • No vehicles or heavy machinery may drive indiscriminately in delineated watercourses. All vehicles must remain on demarcated roads and in the construction footprint. • All vehicles must be regularly inspected for leaks.

Unit	Activity	Aspect	Impact	Significance rating before mitigation measures									Mitigation measures
				I	F	D	E	P	S	C	IS	Significance	
													• Re-fuel on a sealed surface away from wetlands to prevent ingress of hydrocarbons into topsoil. • Immediately treat and clean all spills.
			Loss of catchment yields and surface water recharge, potential loss of biodiversity, impaired water quality, potential loss of instream integrity, potential impacts to freshwater resources further downstream of this point.	3	5	4	3	0,6	4,0	3,5	2,1	Moderate	• Place all infrastructure outside delineated watercourse and their associated zones of regulation (as far as possible). • Ensure that sound environmental management is in place during planning. • Design infrastructure to be environmentally and structurally sound and take all possible precautions to prevent spillage and/or seepage to the surface and groundwater. • Ensure that the design and construction of all infrastructure prevents failure.

16. MOTIVATION WHERE NO ALTERNATIVE SITES WERE CONSIDERED.

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.

17. STATEMENT MOTIVATING THE ALTERNATIVE DEVELOPMENT LOCATION WITHIN THE OVERALL SITE.

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

As is clear from the information provided, each of the phases is dependent on the results of the preceding phase. The location and extent of drilling will be determined based on information derived from the desktop investigations and surveys. An estimated number and extend have been provided, but this will be finalised.

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

18. 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 ever 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.)

In order to identify the potential impacts associated with the proposed prospecting activities the following steps were undertaken:

- 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.

- Baseline Specialist Assessments

The following baseline studies were conducted:

- Hydrogeology study
- Soil study
- Hydrological study

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:

- 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, were consulted. All their comments were formally responded to and incorporated into the Final Basic Assessment Report and Environmental Management Programme that is going to be submitted to the competent authority.

19. 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).

Table 22: Potential environmental impacts and mitigation measures.

Potential environmental impacts and sources	Measures to prevent, mitigate, minimize or manage the impacts
Impact: Air pollution (dust, gaseous emissions) **Source:** Establishment of camp site, movement of vehicles and drill rigs,	• Dust suppression measures will be implemented and the area will be sprayed with water. • A low-speed limit (30 km/h) will be imposed to reduce dust generation. • All equipment and vehicles will be equipped with the manufacturers' standard exhaust systems which will reduce emissions. • Waste burning will not be allowed on site.
Impact: Water pollution (surface water, groundwater and wetlands) **Source:** Spillages from machines on site	Prospecting activities will not be conducted within a 100 m radius from a dam, river, stream, 500 m away from any wetland or any water body and the following will be ensured: • Control and manage storm water • Prevent soil erosion and keep the water channel clean • Monitor the ground water
Impact: Land degradation, land-use and capability **Source:** Poor waste management	• Completed boreholes will be rehabilitated and re-vegetated. • Areas which do not form part of drilling site will not be disturbed • Prospecting will be conducted in an environmentally sustainable manner. • One of the prospecting objectives is to turn the area into other land use/s after closure. • Waste material will be properly managed
Impact: Ecological degradation **Source:** Uncontrolled vehicle movement and	• Disturbed biodiversity will be restored after closure. • Indigenous species will be used to re-vegetate the area. • No animals will be killed and collection of firewood will not be allowed.

poor rehabilitation	• Movement of vehicles will be restricted to designated area only.
Impact: Land pollution **Source:** Lack of proper waste management	• It is anticipated that a small amount of domestic waste will be generated by workers. Such waste materials will be kept in waste bins which will be disposed of on a regular basis at the registered waste disposal site. The same will apply to office waste. • Any spillages which may occur will be investigated and immediate action will be taken. Significant spills (>35 l) of any hazardous substance will be recorded and reported to the environmental personnel, DWA, DMRE and any other relevant authorities. • Scraps will be kept in designated areas prior delivery to the scrap yard. • All machinery will be serviced off site and also inspected for any leaks.
Impact: Aesthetic, pollution **Source:** Machinery	• The visual impact will be of temporary nature. • The surrounding trees and dense vegetation will also serve as the screen to the prospecting area.
Impact: Noise **Source:** Vehicle movements and drill rigs	• The operation will comply with the provisions of the Mine Health and Safety Act, 1996 (Act 29 of 1996) and its regulation as well as other applicable legislations regarding noise control. • Employees will be supplied with ear plugs. All prospecting vehicles are equipped with silencers and maintained in a road worthy condition. • All work will be carried out between 06:00 and 18:00. This will allow landowners and occupiers to have some respite from noise.

Table 23:Activity and potential impact in each phase.

Activity	Description	Affected environment	Potential impact
Prospecting phase			
Uploading of access roads	Access roads that already exist will be upgraded.	Soil	Increased erosion of soils due to the removal of vegetation.
		Natural vegetation	Destruction and removal of natural vegetation during site clearance.
		Surface water	Siltation of surface run-off due to soil erosion.
		Air quality	Dust emission due to wind erosion.
Transportation of equipment	The drilling operation will involve transportation of equipment to the project area.	Soil	Soil compaction due to the repetitive movement on gravel roads.
		Interested and Affected Parties	Damage to roads caused by movement of heavy vehicles and continual use of vehicles moving to and from the site.
		Air quality	Increased dust emissions due to entrainment of dust particles by the movement and operation of construction equipment.
Construction of surface infrastructure.	This will involve vegetation clearing and topsoil removal to construct a site offices, a change house, toilet, etc.	Soil	Permanent compaction of soil in areas of infrastructure construction
		Land capability	Decreased land capability due to damage to the natural soil structure, soil loss through wind and water erosion and leaching of soil nutrients.
		Natural vegetation	Disturbance of vegetation could result in soil erosion due to exposed soils.
		Surface water	Altered surface flow dynamics around surface infrastructure and potential

			contamination of surface water due to fluid spillage.
		Groundwater	Groundwater contamination due to infiltration of contaminated water.
		Air quality	Dust from construction vehicles on gravel and secondary roads.
Soil Removal and Stockpile	It is assumed that the topsoil thickness averages 0.5 m over the disturbed area. Approximately 93 000 m^3 of topsoil will be removed.	Topography	Alteration of local topography and disturbance of natural drainage lines.
		Visual	Creation of stockpiles alters the visual quality of the landscape.
		Soil	Damage to the natural soil structure due to soil handling, removal and mixing of soil types and horizons. Removal of vegetation causes a change in the water runoff characteristics of the site and increases probability of soil erosion. This leads to the loss of topsoil and an increase of siltation in the streams and rivers with the runoff carrying sediment. Leaching of soil nutrients during long-term stockpiling.
		Land capability	Decreased land capability due to damage to the natural soil structure, soil loss through wind and water erosion and leaching of soil nutrients.
		Natural vegetation	Damage to natural vegetation due to deposition of dust emitted during the tipping and stockpiling, restricting photosynthesis.
		Animal life	Direct impacts on threatened fauna species, habitat disturbance and destruction, and disruption of birds nesting, foraging or roosting in the area.
		Surface water	Altered surface flow dynamics due to alterations in the onsite topography and increase of siltation in the streams and rivers with the runoff carrying sediment.
		Air quality	Dust emissions due to wind erosion during tipping of soil onto trucks and

			stockpiles, and exposure of stockpiles to wind erosion, and increased dust generation.
		Noise	Increase of noise of hauling trucks to topsoil stockpile site.
Placement of a fence	A temporary perimeter fence will be constructed around the exploration site which will be limited to the demarcated area to protect operations and prevent people and domestic animals from harm.	Animal life	Limitation of movement for domestic animals to grazing areas. This will prevent movement of domestic animals to demarcated areas, preventing injury.
		Interested and Affected Parties	The temporary fence could prevent access to communal agricultural fields. The fence will also serve as a safety measure, preventing access to possibly hazardous areas.
Storage of fuel	Diesel fuel use for drilling will be determined and the storage capacity will not be triggered by the NEMA list of activities.	Soil	Soil contamination.
		Land capability	Decreased land capability due to contaminated soil.
		Natural vegetation	Damage to natural vegetation and loss due to hydrocarbon and chemicals spills.
		Animal life	Injury or loss of animals due to spillages of hydrocarbons, chemicals.
		Surface water	Contamination of surface water due to the spillage of hydrocarbons, chemicals or contaminated run- off sourced from contaminated soil.
		Groundwater	Groundwater contamination due to the infiltration of surface water contaminated with spilled hydrocarbons, chemicals.
Use of hydrocarbons,	The use of hydrocarbons, chemicals will take place and	Soil	Soil contamination.
		Land capability	Decreased land capability due to contaminated soil.

chemicals	these will be stored on site in designated storage areas.	Natural vegetation	Damage due to natural vegetation and loss due to hydrocarbon and chemical spills.
		Animal life	Injury or loss of animals due to spillages of hydrocarbons, chemicals.
		Surface water	Contamination of surface water due to the spillage of hydrocarbons, chemicals or contaminated run-off sourced from contaminated soil.
		Groundwater	Groundwater contamination due to the infiltration of surface water contaminated with spilled hydrocarbons, chemicals.
Access roads	Existing access roads will be used to access the site and transport equipment onto and off-site. If need be, they will be upgraded.	Soil	Upgrading of existing roads to processing plant may result in soil erosion and loss.
		Land capability	Decreased agricultural and grazing potential of surrounding land due to deposition of dust emitted by vehicle entrainment on haul roads
		Natural vegetation	Decreased agricultural and grazing potential of surrounding land due to deposition of dust emitted by vehicle entrainment on haul roads. Site clearing and removal of topsoil could lead to soil erosion and soil loss.
		Surface water	Altered surface flow dynamics due to topsoil removal, topographical alterations and increased surface runoff from cleared areas. Surface water runoff overhaul roads will cause erosion and siltation of surface water resources. Surface water runoff contamination due to hydrocarbon spills from vehicles travelling on haul roads.
		Air quality	Dust pollution caused by construction vehicles
		Noise	Elevated noise levels due to continuous vehicular movement on haul roads.

		Interested and Affected Parties	Damage to roads could impact safety of people and animals.
Decommissioning and closure			
Rehabilitation	All areas disturbed will be rehabilitated to its original state with the waste rock and topsoil stockpiles. Roads should be ripped or ploughed and fertilised if necessary, to promote re-growth of vegetation.	Soil and vegetation	Positive impact as topsoil will be replaced to enhance vegetation growth.
		Animal life	Positive impact as vegetation will re-establish itself and the natural Fauna will gradually return to the rehabilitated sites.

20. 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.
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	X	See Soil section on page 74groundwater

	• Drilling on steep slopes will be avoided, to prevent soil erosion. • The exploration geologist will be advised to drill and sample more than 100m away from the waterbody on site. • The proposed prospecting land should be returned to its origin as before prospecting activities and the rehabilitation performance assessment in the proposed land must be done progressively (annually) during the operational phase by a soil specialist. • Dust suppression should be conducted regularly		
Hydrological Study	• It can be concluded that the prospecting activity will cause minimal impact on the water resources. The prospecting right activity should take place during dry seasons where the water percentages in the surrounding streams are exceptionally low. • Drilling activity should not be conducted near these water resources; the exploration geologists will be advised to drill and sample away from rivers and wetlands on site. • The exploration boreholes should be cased during drilling and properly rehabilitated after drilling. • Extreme caution should be taken during prospecting, owing to the perennial rivers and numerous wetlands existing within and nearby the project area. No washing of any mechanical equipment or vehicles will be allowed near the water resources.	X	See Surface Water section on page 80

	• All the perennial and non-perennial rivers will be buffered as no go area preferably a 500m-1km buffer will apply. • The core logs of boreholes with mineral of interest should be cleared from the ground immediately after logging by the geologists to prevent washing and leaching to the water resources during rainfall.		
Hydrogeological Study	• On site there will be regular maintenance of the mobile toilets. ➢ Once drilling, 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). • No onsite vehicle or machinery repairs such as changing oil. • No onsite storage of oil, diesel, or petrol.	X	See Ground Water section on page 86

	• Cores will be logged on an impervious surface and will be cleared from the site immediately after logging. • No washing of vehicles on site. • The sump will not be allowed to overflow and will be lined with impervious layer.		

21. ENVIRONMENTAL IMPACT STATEMENT

Prospecting will have very low environmental and social impacts. Usually, such impacts can be reversed or rehabilitated. The expected invasive impacts are the drilling of the twenty exploration holes that amount to 0.9 ha, which makes up less than 1% of the area being applied for.

The proposed prospecting operation may affect existing alternative land uses on adjacent and non-adjacent properties, as the area predominantly breeds wildlife and is surrounded by game farms. The following actions are subject to the proposed mitigation measures and require monitoring:

- Vegetation clearing
- Hydrocarbon-based material storage on site
- On-site waste management
- Road/track construction
- Soil and groundwater contamination
- Traffic in the area
- Vehicles and equipment used for drilling
- Noise generation
- Fire outbreaks

The site geologist must monitor the required on-site mitigation measures daily. An independent EAP must conduct annual monitoring audits.

22. 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 .

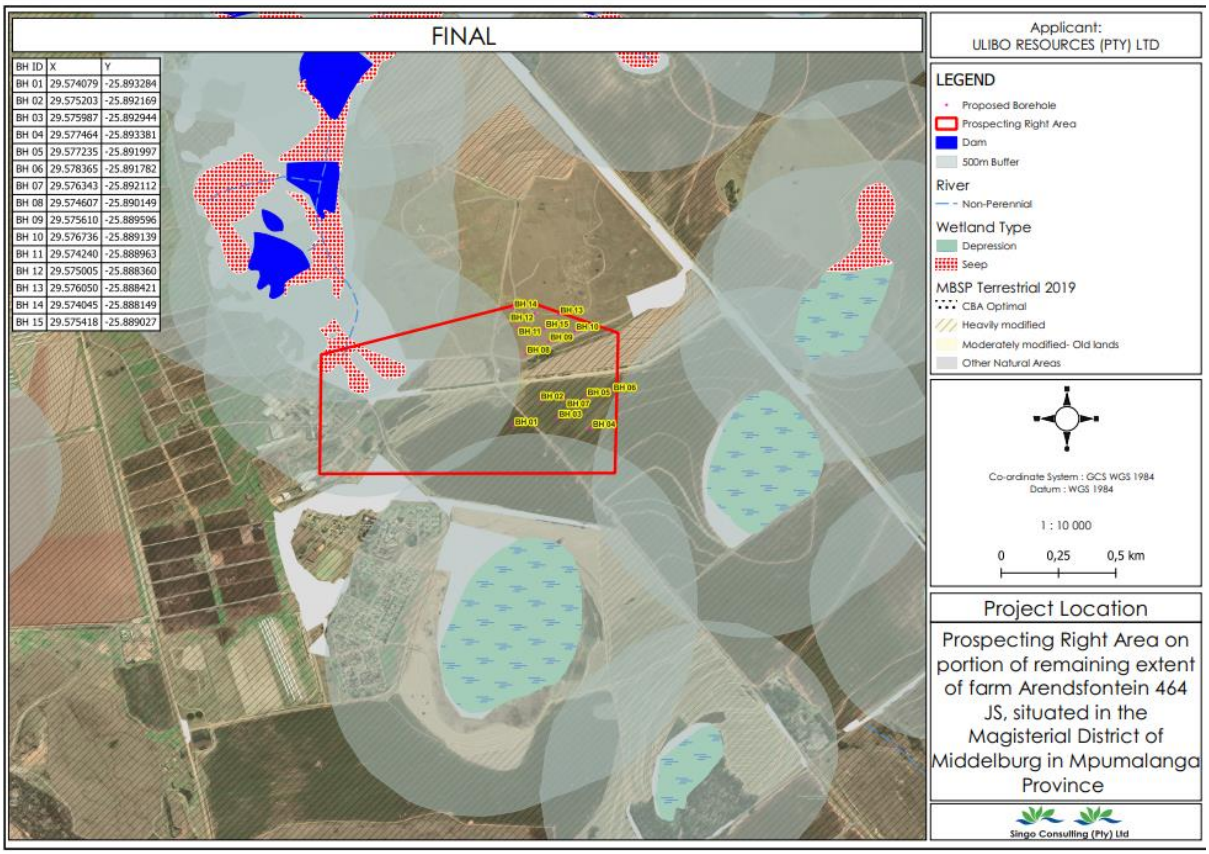


Figure 55:Final site map.

23. SUMMARY OF THE POSITIVE AND NEGATIVE IMPACTS AND RISKS OF THE PROPOSED ACTIVITY AND IDENTIFIED ALTERNATIVES.

Positive and negative impacts associated with the proposed prospecting activities include:

Positive

- The area will be rehabilitated.
- Direct employment and skills development

Negative

- Destruction/loss of indigenous natural vegetation and plants of ecological importance due to site establishment
- Disturbance of animal species in and around the proposed site
- Potential spread of declared weeds and alien invader plants
- Potential groundwater contamination due to fuel, lubricant and chemical spills
- Nuisance stemming from vehicle emissions
- Nuisance to surrounding landowners caused by moving vehicles and drill rigs
- Disturbance of wildlife in surrounding farms

- Potential soil erosion during site clearance and drilling. Potential soil contamination due to spills.
- Visual disturbance (vegetation clearance and temporary infrastructures including equipment on site)
- Generation of solid and other waste from ablution facilities
- Increase of traffic in the area as vehicles access sites
- Potential friction with I&Aps and landowners due to disturbance of local businesses
- Physical removal of rock material for logging and sampling purposes during drilling

The proposed activities have low significance impacts since these are short-term activities. Socio-economic impacts like employment have medium significance, due to impacts on the surrounding community. Generally, prospecting activities have low impact on the environment. Since the planned activities' negative impacts can be controlled, avoided or reduced, the layout does not require revision. Mitigation measures will be used to control, avoid and/or minimise all identified potential impacts.

24. 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 EMPr seeks to achieve a required end state and describe how activities that could adversely impact the environment will be mitigated, controlled and monitored. The EMPr will address the environmental impacts during site establishment, drilling, and decommissioning of the proposed project. Due regard will be given to environmental protection during the entire project. A number of environmental recommendations will be made to protect the environment. The environmental and social objectives will be set to allow prospecting in an environmentally and socially responsible manner while ensuring that sustainable closure can be achieved. To achieve closure, the correct decisions need to be taken during project planning.

The overall goal for environmental management for the proposed project is to prepare the site and operate the project in a manner that:

- Minimises the ecological footprint of the project on the local environment.
- Facilitates harmonious co-existence between the project and other land uses in the area.

- Contributes to the environmental baseline and understanding of environmental impacts of prospecting in a South African context.

The following environmental management objectives are recommended for the proposed mineral prospecting development and associated infrastructure:

- Monitor soils to avoid unnecessary erosion and implement erosion control measures to preserve the quality of the topsoil for rehabilitation.
- Restrict the area of impact to designated areas only.
- Monitor and prevent contamination and undertake appropriate remedial actions.
- Limit the visual and noise impact on receptors.
- Avoid impact on possible heritage and archaeological resources.
- Promote health and safety of workers.
- Limit dust and other emissions to allowable limits

25. ASPECTS FOR INCLUSION AS CONDITIONS OF AUTHORISATION.

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

Ulibo Resources (Pty) Ltd must comply with all environmental legislation. Specific environmental legislation to be adhered to include the NEMA and the MPRDA. The following conditions of authorisation apply to the proposed project:

- Notice must be given to landowners and surrounding landowners one month prior to prospecting activities commencing.
- Landowners and land occupiers should be engaged (re-consulted) at least one month prior to any site activities being undertaken once drill sites are known.
- A map detailing the drilling locations should be provided to the landowners and the DMRE prior to prospecting commencement.
- A record must be kept of the implementation of the EMPr measures and monitoring of the efficiency of the implemented measures.
- A buffer of 100 m from any water course should be established during site establishment and drilling.

26. DESCRIPTION OF ANY ASSUMPTIONS, UNCERTAINTIES, AND GAPS IN KNOWLEDGE.

(Which relate to the assessment and mitigation measures proposed)

- The EAP does not accept any responsibility in the event that additional information comes to light at a later stage of the process.
- All information provided by the EAP was correct at the time provided.
- The scope of this investigation is limited to accessing the potential environmental impacts associated with the proposed project.

27. REASONED OPINION AS TO WHETHER THE PROPOSED ACTIVITY SHOULD OR SHOULD NOT BE AUTHORISED.

Based on the site investigations and analysis of the EAP, it is suggested that the proposed activity be authorised, since the following applies:

- The site geologist will monitor implementation of the required mitigation measures on site daily.
- An independent EAP will conduct annual monitoring audits and compile the required annual environmental compliance report required by the DMRE.
- The environmental impacts associated with the limited drilling activities are minimal, provided that the proposed mitigation measures are implemented.
- The desktop studies prove that the site is located on a mineralized zone. Prospecting activities must be undertaken to confirm ore reserves.
- The no-go option will result in a significant loss of valuable information regarding the status of the ore bodies present on the properties in question.
- Should economical reserves be present and the applicant does not have the opportunity to prospect, the opportunity to use these reserves for future phases will be lost as well.
- With appropriate care and consideration, the impacts resulting from drilling can be avoided, minimised, or mitigated.
- The mining sector is the pillar of the South African economy and employs many.
- A buffer of 100 m and 500 m from any water courses should be established during the operational phase.

28. CONDITIONS THAT MUST BE INCLUDED IN THE AUTHORISATION.

- Maintain a minimum 100 m buffer from any infrastructure or dwelling (businesses, homes).
- Engage with landowners and land occupiers (re-consult) at least one month prior to any site activities being undertaken once drill sites are known.
- A map detailing the drilling locations should be provided to landowners and the DMRE prior to commencement of prospecting.
- Record the implementation of EMPr measures and monitor the efficiency thereof.
- Establish a buffer of 100 m and 500 m from wetlands and water courses during planning.
- Submit a suitable closure plan to show sufficient providence for the avoidance, management and mitigation of environmental impacts associated with the decommissioning of the proposed activities.

29. PERIOD FOR WHICH THE ENVIRONMENTAL AUTHORISATION IS REQUIRED.

The PR has been applied for a period of five years. The EA should therefore allow for five years of prospecting and one year for decommissioning and rehabilitation.

30. 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.

31. FINANCIAL PROVISION

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

A financial provision of approximately, R40 166 which includes rehabilitation activities will be made available by Ulibo Resources (Pty) Ltd. The applicant undertakes to provide financial provision through funding from the investors of Ulibo Resources (Pty) Ltd.

Table 24: Quantum Calculations

CALCULATION OF THE QUANTUM

Applicant: **ULIBO RESOURCES (PTY) LTD** **DMRE REF: MP 30/5/ MP 30/5/1/1/2/16911 PR**
Evaluator: **Singo Consulting (Pty) Ltd** **Date:17 M**

No.	Description	Unit	A Quantity	B Master Rate	C ultiplicati 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	5683	49	0,2	0,3	16708,02
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	0,4	0,3	16214,904
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		32922,924

1	Preliminary and General	3950,75088	weighting factor 2 1	3950,75088
2	Contingencies	3292,2924		3292,2924
			Subtotal 2	40165,97
			VAT (15%)	
			Grand Total	**40166**

Sign THILIVHALI NDOU
Date 17/03/2023

31.1 Explain how the aforesaid amount was derived.

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

31.2 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).

Should EA be granted to Ulibo Resources (Pty) Ltd, the applicant 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.

32. SPECIFIC INFORMATION REQUIRED BY THE COMPETENT AUTHORITY.

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 following:

32.1 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 surrounding area of the proposed site is used for maize crop farming, livestock farming and office use. The proposed project may directly affect the surrounding businesses and homesteads if prospecting does not follow best practices.

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

(Provide the results of Investigation, assessment, and evaluation of the impact of the mining, bulk sampling or alluvial diamond prospecting on any national estate referred to in section 3(2) of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) with the exception of the national estate contemplated in section 3(2)(i)(vi) and (vii) of that Act, attach the investigation report as ***Appendix 2.19.2*** *and confirm that the applicable mitigation is reflected in 2.5.3; 2.11.6.and 2.12.herein).*

Mitigation measures proposed in this report include that no drill site will be located within 100 m of any identified heritage site (which may occur during the prospecting programme) based on the desktop work undertaken. Should any paleontological or cultural artefacts be discovered work at the point of discovery must stop, the location be clearly demarcated and SAHRA contacted immediately. Work at the discovery site may only be recommenced on instruction from SAHRA.

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)).

33. 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)****.*

This BAR and EMPr were compiled in accordance with the NEMA, EIA Regulations (2014, amended April 2017) and MPRDA. The EAP managing the application confirms that the BAR and EMPr is being submitted for EA in terms of the NEMA in respect of listed activities that have been triggered by application in terms of MPRDA. Should the DMRE require any additional information, it will be provided upon request. No reasonable or feasible alternatives exist for this PR application and as such, motivation for no alternatives has been provided in the relevant sections above.

PART B

ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT

1. DRAFT ENVIRONMENTAL MANAGEMENT PROGRAMME.

1.1 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).

Details of EAP are included in PART A section 1(a).

1.2 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).

The requirement to describe the aspects of the activity that are covered by the environmental management programme is included in Part A of this report.

1.3 Description of Impact management objectives including management statements

Determination of closure objectives:

- Rehabilitation of areas disturbed as a consequence of prospecting to a land capability that will support and sustain a predetermined post-closure land use.
- Removal of all infrastructure/equipment that cannot be beneficially re-used, as per agreements established, and returning the associated disturbed land to the planned final land use.
- Removal of existing contaminated material from affected areas.
- Establishment of final landforms that are stable and safe in the long run.
- Establishment and implementation of measures that meet specific closure performance objectives.

Environmental management must be integrated, acknowledging that all elements of the environment are linked and interrelated, and it must consider the effects of decisions on all aspects of the

environment and all people in the environment by pursuing the selection of the best practicable environmental option.

1.4 Environmental Legislation

To comply with all environmental legislation. Specific aspects to be adhered to from environmental legislation include.

1.4.1 National Environmental Management Act, Act 107 of 1998 (NEMA)

As the NEMA is the cornerstone of all environmental legislation, the management measures implemented by the Ulibo Resources (Pty) Ltd will strive to adhere to the principles of NEMA:

- That the disturbance of ecosystems and loss of biological diversity are avoided, or, where they cannot be altogether avoided, are minimised, and remedied.
- that pollution and degradation of the environment are avoided, or, where they cannot be altogether avoided, are minimised and remedied;
- that the disturbance of landscapes and sites that constitute the nations cultural heritage is avoided, or where it cannot be altogether avoided, is minimised and remedied;
- that waste is avoided, or where it cannot be altogether avoided, minimised, and reused or recycled where possible and otherwise disposed of in a responsible manner;
- that the use and exploitation of non-renewable natural resources is responsible and equitable, and considers the consequences of the depletion of the resource;
- that a risk averse and cautious approach is applied, which considers the limits of current knowledge about the consequences of decisions and actions; and
- that negative impacts on the environment and on people's environmental rights be anticipated and prevented, and where they cannot be altogether prevented, are minimised, and remedied.

Environmental management must be integrated, acknowledging that all elements of the environment are linked and interrelated, and it must consider the effects of decisions on all aspects of the environment and all people in the environment by pursuing the selection of the best practicable environmental option.

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

After careful consideration of the scale of operation it has been deduced that approximately 500 L will be used as potable water. It is anticipated that water will be purchased from a private water filter dealer, like Oasis, and brought to the site.

1.5.1 Has a water use licence has been applied for?

No water use license is required for this application. Water required for drilling activities will be obtained from a legal source in the area or brought in via a mobile water tanker. Appropriate dust extraction/ suppression equipment will be a condition imposed on the drill contractor for drill rigs.

2. IMPACTS TO BE MITIGATED IN THEIR RESPECTIVE PHASES.

Table 25: Impacts to be mitigated.

Activities	Phase	Scale of Disturbance	Mitigation Measures	Compliance with Standards	Time Period for Implementation
Site clearance	Construction Operation	0.9 ha, short term and localized	• Demarcation of sensitive areas in consultation with relevant specialists and ECO; • Utilise local labour if possible; • Minimise removal of vegetation as far as possible; • Identification and relocation of protected species by a qualified ecologist (and application or the relevant biodiversity permits where required); • Minimize dust generation; • Limit vehicle access; • Implement alien vegetation management; • Ongoing identification of risks and impacts; • Emergency preparedness; • Monitoring and review; and • Avoid disturbance of fauna as much as possible, especially bird nesting sites.	NEMA MPRDA NEMBA NEMAQA Dust regulations NWA DWAF Best Practice Guidelines	Throughout Construction and operation

Site access	Construction Operation	0.9 ha, short term and localized	• All employees and visitors to the site must undergo a site induction which shall include basic environmental awareness and site-specific environmental requirements (e.g. site sensitivities and relevant protocols/procedures). This induction should be presented or otherwise facilitated by the Contractors EO/Mine EO wherever possible. • Landowners/lawful occupiers must be notified prior to accessing properties. A date and time that is suitable to landowners/lawful occupiers and is reasonable to the applicant should be negotiated and agreed upon. • The number, identity of workers, work location and work to be done must be provided to the landowner/lawful occupier prior to going on site. • Consideration must be taken by the applicant and/or contractors when on site not to interfere with the existing land uses and practices.	NEMA OHS & MHSA	Throughout Construction and operation
Establishment of site infrastructure	Construction	short term and localized	• Minimise physical footprint of construction; • Ensure construction is consistent with occupational health and safety requirements; • Minimise vegetation clearance; • Ensure proper and adequate drainage; • Minimise waste and control waste disposal; • Fencing of all drill sites with security access	NEMA MPRDA NEMBA NEMAQA Dust regulations	Throughout Construction and operation

			control and warning signs; • Establish waste storage areas for recycling; • Ensure adequate containment of waste to prevent pollution; • Minimise dust generation; • Limit vehicle access to approved access roads; • Prepare contingency plans for spillage	NWA DWAF Best Practice Guidelines NHRA	

Activities	Phase	Size and Scale of Disturbance	Mitigation Measures	Compliance with Standards	Time Period for Implementation
Storage of construction vehicles	Construction and Operation	short term and localized	• Any equipment that may leak, and does not have to be transported regularly, must be placed on watertight drip trays to catch any potential spillages of pollutants. The drip trays must be of a size that the equipment can be placed inside it; • Drip trays must be cleaned regularly and shall not be allowed to overflow. All spilled hazardous substances must be collected and adequately disposed of at a suitably licensed facility; and • Compacting of soil must be avoided as far as possible, and the use of heavy machinery must be restricted in areas outside of the proposed exploration sites to reduce the compaction of soils.	NWA DWAF BPG	Throughout Construction and operation

Transportation/ access to and from drill sites	Construction and Operation	short term and localized	• Where possible, drill sites should be located along existing access roads to reduce the requirement for additional access roads; • Any new temporary access routes to a drill site should result in minimal disturbance to existing vegetation; • Prior to accessing any portion of land, the Applicant must enter into formal written agreements with the affected landowner. This formal agreement should additionally stipulate landowners special conditions which would form a legally binding agreement;	NEMA NEMBA CARA NEMAQA Dust Regulations Road Traffic Act	Throughout Construction and operation

Activities	Phase	Size and Scale of Disturbance	Mitigation Measures	Compliance with Standards	Time Period for Implementation
			• All farm gates must be closed immediately upon entry/exit; • Under no circumstances may the contractor damage any farm gates, fences, etc.; • On-site vehicles must be limited to approved access routes and areas on the site so as to minimize excessive environmental disturbance to the soil and vegetation on site, and to minimize disruption of traffic (where relevant); • All construction and vehicles using public roads must be in a roadworthy condition and their loads secured. They must adhere to the speed limits and all local, provincial and national regulations with regards to road safety and transport; • Damage caused to public roads as a result of the construction activities must be repaired in consultation with the relevant municipal authorities; and • All measures should be implemented to minimize the potential of dust generation.		
Storage of hazardous substances	Construction and Operation	short term and localized	All hazardous substances (e.g. fuel, grease, oil, brake fluid, hydraulic fluid) must be handled, stored and disposed of in a safe and responsible manner so as to prevent pollution of the environment or harm to people or animals. Appropriate measures must be implemented to prevent spillage and appropriate steps must be	NWA NEMWA DWAF BPG NEMA	Throughout Construction and operation

			taken to prevent pollution in the event of a spill; and way that does not pose any danger of pollution even during times of high rainfall.		
Prospecting boreholes: 15 sites ,with a footprint of 600 m^2 each	Construction and Operation Decommissioning	0.9 short term	• Vegetation clearing for prospecting sites should be kept to a minimum in order to reduce the disturbance footprint; • Compaction of soil must be avoided as far as possible, and the use of heavy machinery must be restricted in areas outside of the proposed prospecting sites to reduce the compaction of soils; • All measures should be implemented to minimize the potential of dust generation; • Noise attenuation on engines must be adequate, and the noisy activities must be restricted as far as is possible to times and locations whereby the potential for noise nuisance is reduced; • When working near to a potential sensitive area, the contractor must limit the number of simultaneous activities to the minimum; • Ensure proper storage of fuels; • On-site vehicles must be limited to approved access routes and areas on the site so as to minimize excessive environmental	SANS 10103 ECA Noise Regulations NEMAQA Dust Regulations NWA	Throughout Construction and operation and decommissioning

			disturbance to the soil and vegetation on site, and to minimize disruption of traffic; • Workforce should be kept within defined boundaries and to agreed access routes. • No invasive prospecting activities to be undertaken within 100m of a watercourse. Should any watercourse be affected, then the necessary water use licenses should be		

Activities	Phase	Size and Scale of Disturbance	Mitigation Measures	Compliance with Standards	Time Period for Implementation
			obtained from the Department of Water and Sanitation. • No ablution of site laydown areas is to be located within 100m of a watercourse. • Where drinking water/ livestock watering boreholes are to be affected, and where a pollution event occurs at a particular borehole, then the advice of a geohydrologist should be sought with regards to the need for plugging and casing of the prospecting boreholes.		

Prospecting	Construction and Operation	0,9 ha, short term	Workers must be easily identifiable by clothing and ID badges. Workers should carry with them, at all times a letter from the applicant stating their employment, title, role and manager contact details.	OHS and MHSA	Throughout Construction and operation
Resource definition drilling	Planning Phase Construction and Operation	short term	Local residents (landowners and directly adjacent landowners) should be notified of any potentially noisy activities or work and these activities should be undertaken at reasonable times of the day. This work should not take place at night or on weekends;	MPRDA Regulations GN R527 SANS 10103	Planning Phase Throughout Construction and operation

Activities	Phase	Size and Scale of Disturbance	Mitigation Measures	Compliance with Standards	Time Period for Implementation

			• recording, sampling or collection) can be taken by a professional palaeontologist. • The Final BAR and appendices must be submitted to SAHRA for record purposes; • If any evidence of archaeological sites or remains (e.g. remnants of stone-made structures, indigenous ceramics, bones, stone artefacts, ostrich eggshell fragments, charcoal and ash concentrations), fossils or other categories of heritage resources are found during the proposed development, SAHRA must be alerted. If unmarked human burials are uncovered, the SAHRA Burial Grounds and Graves (BGG) Unit, must be alerted immediately. A professional archaeologist or palaeontologist, depending on the nature of the finds, must be contracted as soon as possible to inspect the findings. If the newly discovered heritage resources prove to be of archaeological or palaeontological significance, a Phase 2 rescue operation may be required subject to permits issued by SAHRA; and • If the development receives an Environmental Authorisation (EA), SAHRA must be informed and all documents pertaining to the EA must be uploaded to		

			the SAHRIS Case file.		

Activities	Phase	Size and Scale of Disturbance	Mitigation Measures	Compliance with Standards	Time Period for Implementation

Refuelling	Construction and Operation	Short term and localized	• Refuelling may only take place within demarcated areas that is subject to appropriate spill prevention and containment measures refuelling and transfer of hazardous chemicals and other potentially hazardous substances must be carried out so as to minimize the potential for leakage and to prevent spillage onto the soil; • Drip trays should be utilized in relevant locations during transfer so as to prevent such spillage or leakage. Any accidental spillages must be contained and cleaned up promptly.	NWA DWAF BPG	Throughout Construction and operation
Maintenance and repair	Construction and Operation	Short term and localized	• Trucks, machinery and equipment must be regularly serviced to ensure they are in proper working condition and to reduce risk of leaks. All leaks must be cleaned up immediately using spill kits or as per the emergency response plan. For large spills a hazardous materials specialist shall be utilized; • Accidental hydrocarbon spillages must be reported immediately, and the affected soil should be removed, and rehabilitated or if this is not possible, disposed of at a suitably licenced waste disposal facility.	NWA DWAF BPG NEMA	Throughout Construction and operation

Borehole Closure	Decommissioning and Closure	Short term and localized	• Where groundwater is encountered during drilling, all affected prospecting boreholes that will not be required for later monitoring or other useful purposes should be plugged and sealed with cement to prevent possible cross flow and contamination between aquifers; • Cement and liquid concrete are hazardous to the natural environment on account of the very high pH of the material, chemicals contained.	NWA DWAF BPG	Throughout Decommissioning and Closure

Activities	Phase	Size and Scale of Disturbance	Mitigation Measures	Compliance with Standards	Time Period for Implementation
			therein. As a result, the contractor shall ensure that: • Concrete shall not be mixed directly on the ground; • The visible remains of concrete, either solid, or from washings, shall be physically removed immediately and disposed of as waste, (Washing of visible signs into the ground is not acceptable); and o All excess aggregate shall also be removed.		

Removal of surface infrastructure	Decommissioning	Short term and localized	• All infrastructure, equipment, and other items used during prospecting will be removed from the site. • Compaction of soil must be avoided as far as possible. The use of heavy machinery must be restricted in areas outside of the proposed prospecting sites to reduce the compaction of soils.	MPRDA Rehab Plan	Decommissioning
Removal of waste	Decommissioning	Small scale and localized	• Any excess or waste material or chemicals, including drilling muds etc. must be removed from the site and must preferably be recycled (e.g. oil and other hydrocarbon waste products). Any waste materials or chemicals that cannot be recycled must be disposed of at a suitably licensed waste facility.	NWA DWAF BPG	Decommissioning

Activities	Phase	Size and Scale of Disturbance	Mitigation Measures	Compliance with Standards	Time Period for Implementation

Rehabilitation	Rehabilitation	All disturbed areas	• Restoration and rehabilitation of disturbed areas must be implemented as soon as prospecting activities are completed; • Sites must be restored to the original condition with vegetation cover (where applicable) equalling the surrounding vegetation cover; • All debris and contaminated soils must be removed and suitably disposed of; • Contours and natural surrounding must be reformed; • Natural drainage patterns must be restored; • All surface infrastructure on site must be removed; • Temporary access routes/roads must be suitably rehabilitated; and • Sites must be monitored by the ECO (including relevant specialist's inputs if, necessary) for adequate rehabilitation until the desired rehabilitation objectives have been achieved.	MPRDA Rehab Plan NEMA	Rehabilitation
Consultation	Planning Phase Construction and Operation	Medium term, local	• Stakeholder engagement will continue throughout the prospecting activities to ensure the community and landowners are kept informed and allowed to raise issues.	NEMA OHS and MHSA	Planning Phase Throughout Construction and Operation

Monitoring	Post-Operational	All rehabilitated areas	The post-operational monitoring and management period following decommissioning of prospecting activities must be implemented by a suitable qualified independent party for a minimum of one (1) year unless otherwise specified by the competent authority. The monitoring activities during this period will include but not be limited to: • Biodiversity monitoring; and • Re-vegetation of disturbed areas where required. Provision must be made to monitor any unforeseen impact that may arise as a result of the proposed prospecting activities and incorporated into post closure monitoring and management.	MPRDA Rehab Plan	Post-operation

2.1 Impact Management Actions and Outcomes

Description of impact management outcomes, identifying the standard of impact management required for the aspects contemplated in paragraph.

Table 26: Impact Management Action and Outcome

Activity	Potential Impact	Aspects Affected	Phase	Mitigation Type	Standard to be Achieved

Activity	**Potential Impact**	**Aspects Affected**	**Phase**	**Mitigation Type**	**Standard to be Achieved**
Site clearance	• Deterioration and damage to existing access roads and tracks; • Dust generation; • Clearance of vegetation; • Invasion by alien species; • Sedimentation • Erosion	Topography; Soil; Air Quality; Surface Water; Groundwater; Transportation	Construction Operation	Avoid and control through implementation of EMP mitigation measures (e.g. speed limit enforcement, vehicle maintenance)	NEMA NEMBA CARA Threatened or Protected Species (TOPS) regulations NEMAQA Dust regulations NWA DWAF best Practice Guidelines

Establishment of base camps and access	• Interference with existing land uses • Safety and security risks to landowners and lawful occupiers; • Deterioration and damage to existing access roads and tracks; • Dust generation; • Clearance of vegetation; • Pollution of soils • Contamination on surface and ground	Topography; Landform; Soil disturbance; Fauna and Flora; Air Quality; Surface Water; Groundwater; Socioeconomics	Construction Operation	Avoidance and control through preventative measures (e.g. communication with landowners, site access control) Remedy through application of mitigation measures in EMP	NEMA MPRDA NEMBA CARA Threatened or Protected Species (TOPS) regulations NEMAQA Dust regulations NWA DWAF best Practice Guidelines

Activity	Potential Impact	Aspects Affected	Phase	Mitigation Type	Standard to be Achieved
Storage of construction vehicles	• Pollution of surface and groundwater resources from potential hydrocarbon spills; and • Compaction of soils	Surface water; Groundwater; Soils.	Construction Operation	Avoid through implementation of EMP mitigation measures (e.g. communication with landowners) Control through implementation of ESMS	Protected Species (TOPS) regulations NEMAQA Dust regulations NWA DWAF best Practice Guidelines
Transportation to and from drill sites	• Soil compaction; • Disturbance and loss of fauna and flora, Wearing and tearing of existing roads and Dust generation from increased traffic.	Soil disturbance; Fauna and Flora; Air quality.	Construction Operation	Avoid and control through implementation of EMP mitigation measures (e.g. speed limit enforcement, vehicle maintenance)	NEMA NEMBA CARA Threatened or Protected Species (TOPS)

					regulations NEMAQA

Activity	Potential Impact	Aspects Affected	Phase	Mitigation Type	Standard to be Achieved
Storage of hazardous substances	Potential hydrocarbon spills that could pollute surface and ground water resources.	Surface water; Groundwater.	Construction Operation	Avoid and control through implementation of EMPr mitigation measures (e.g. speed limit enforcement, vehicle maintenance)	NEMA NEMBA NWA DWAF best Practice Guidelines
Waste management	Pollution of habitats and surrounding areas.	Pollution	Construction Operation	Avoid and control through implementation of EMP mitigation measures (e.g. speed limit enforcement, vehicle maintenance	DWAF minimum requirement for waste disposal

Activity	Potential Impact	Aspects Affected	Phase	Mitigation Type	Standard to be Achieved
Prospecting boreholes	• Vegetation clearance; • Possible erosion; • Changes in drainage and surface hydrology; • Soil disturbance and compaction; • Emissions from vehicles; • Land use conflict; • Noise disturbance due to acoustic sources; • Dust generation; • Disturbance or damage of paleontological resources; Potential spills of hydrocarbons; • Influx of people; • Impact on groundwater	Ecology; Topography; Access/footprint; Soil disturbance; Noise; Air Quality; Socio-economics; Groundwater	Construction Operation Decommissioning	Control through implementation of EMPR mitigation measures	SANS10103 ECA Noise Regulations NEMAQA Dust regulations NWA

Resource definition drilling	• Vegetation clearance • Removal of topsoil; • Changes in drainage and surface hydrology; • Drainage and soil contamination; • Land use conflict; • Dust generation;	Air Quality; Noise; Surface water; Groundwater,	Operation	Control through implementation of EMPR mitigation measures	SANS10103 ECA Noise Regulations NEMAQA Dust regulations

Activity	Potential Impact	Aspects Affected	Phase	Mitigation Type	Standard to be Achieved	
	• Disturbance of wildlife and communities in close vicinity; • New access roads; • Increased transportation; • Damage to local infrastructures; • Disturbance or damage of palaeontological resources; • Influx of people; • Waste water discharge; • Spillage and leaks of hydrocarbons; Pollution or interplay between groundwater aquifers; Waste disposal.				NWA DWAF best Practice Guidelines	
Refuelling	Potential hydrocarbon spills that could pollute soil or surface and/or groundwater resources.	Pollution; Surface water; Groundwater	Construction Operation	Control through implementation of EMPr mitigation measures	NWA DWAF best Practice	

					Guidelines	
Maintenance and repair	Potential hydrocarbon spills that could pollute surface and groundwater resources.	Pollution; Surface water; Groundwater	Construction Operation	Control through implementation of EMPr mitigation measures	NWA	

Activity	Potential Impact	Aspects Affected	Phase	Mitigation Type	Standard to be Achieved
Borehole closure	• Pollution of groundwater resources; • Potential pollution of habitats with cement residue that may be exposed to runoff etc.	Pollution; Groundwater	Decommissioning	Control through implementation of EMPr mitigation measures	NWA
Removal of surface infrastructure	• Soil compaction; • Pollution of soil and surrounding vegetation.	Landform; Topography; Soils.	Decommissioning	Control through implementation of EMPr mitigation measures	MPRDA In accordance with Rehab plan
Rehabilitation	• Soil compaction; • Soil and Water contamination; • Erosion; • Change is drainage and surface hydrology; • Loss of habitat; and • Disturbance to wildlife and communities in close vicinity	Topography Land use Soil disturbance Ecology Surface water Groundwater	Rehabilitation	Control through implementation of EMPr mitigation measures	MPRDA In accordance with Rehabilitation plan
Monitoring of rehabilitated sites	• Soil compaction; • Soil and Water contamination; • Erosion; • Disturbance to wildlife; and communities in close vicinity.	Topography Land use Soil disturbance Ecology Surface water	Post-operation	Control through adhering to monitoring requirements	MPRDA and regulations

		Groundwater			

3. FINANCIAL PROVISION

3.1 Determination of the amount of Financial Provision.

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

A total of R 40166 is required to manage and rehabilitate the environment. Ulibo Resources (Pty) Ltd must update and review the quantum of the financial provision annually.

3.2 Closure objectives and the extent to which they align to the baseline environment described under the regulation

For a prospecting operation such as this, the primary closure and environmental objectives are to:

- Minimise 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 EMPr.
- Sustain the pre-prospecting land use.
- To record and communicate the results of the monitoring programme during decommissioning to the participating stakeholders.

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

The environmental objectives in relation to closure will be consulted with the farmers and I&APs. It will be explained that, should prospecting yield negative results, the end use for the area will revert to its pre-prospecting land use (minutes to be incorporated in the final report). The end-use of the area will not be changed by prospecting.

3.3.1 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.

Table 27: Rehabilitation plan.

Aspect/impact	Rehabilitation measure	Monitoring frequency and responsibility
Removal of temporary structures	• Clear and completely remove from site all prospecting equipment, storage containers, signage, temporary ablution facilities, fixtures and any other temporary works. • Ensure that all access roads used during site establishment (which are not earmarked for closure and rehabilitation) are returned (as far as possible) to their pre-prospecting state.	Once-off Ulibo Resources (Pty) Ltd
Vegetation clearing/replanting	• Remove any emerging alien and invasive vegetation to prevent further establishment. • Suitable qualified personnel must undertake all planting work using appropriate equipment. • Transplant during the winter (between April and September). • Plant indigenous plants to minimise the spread of alien and invasive vegetation.	When re-vegetation is done and in blooming season Ulibo Resources (Pty) Ltd or sub-contractor appointed
Topsoil replacement	• Replace and redistribute stockpiled topsoil with herbaceous vegetation, overlying grass and other fine organic matter in all disturbed areas of the prospecting site, including temporary access routes and roads. Replace topsoil to the original depth. • Prohibit the use of topsoil suspected to be contaminated with alien vegetation seed, or spray the soil with specified herbicides. • Where local soil has poor drainage, broken rock (about 75 mm in diameter) must be placed to a depth of 150 mm at the bottom of the planting hole prior to planting and backfilling with approved plant medium mixture.	Once-off Ulibo Resources (Pty) Ltd
Waste and rubble removal	Remove from site all domestic waste and dispose of it in the approved manner at a registered waste disposal site.	Once-off Ulibo Resources (Pty) Ltd
Solid and	• Dispose of all hazardous waste not earmarked for	Once-off

Aspect/impact	Rehabilitation measure	Monitoring frequency and responsibility
hazardous waste	reuse, recycling or resale at a registered hazardous waste disposal site. • Remove from site all temporary fuel stores, hazardous substance stores, hazardous waste stores and pollution control sumps. • Do not hose oil or fuel spills into a storm water drain or sewer, or into the surrounding natural environment. • Dispose of all visible remains of excess cores that were drilled after the completion of tasks.	Ulibo Resources (Pty) Ltd
Erosion protection	• Protect all areas susceptible to erosion and ensure that there is no undue soil erosion resultant from activities in and around the proposed site. • Retain shrubbery and grass species where possible. • Regularly monitor and maintain erosion control measures.	After rainfall, Ulibo Resources (Pty) Ltd or sub-contractor appointed

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

Ulibo Resources (Pty) Ltd is required to make the prescribed financial provision for the rehabilitation or management of negative environmental impacts. If Ulibo Resources (Pty) Ltd fails to rehabilitate or manage any negative impact on the environment, the DMRE may, upon written notice to the company, use all or part of the financial provision to rehabilitate or manage the negative environmental impact in question. Ulibo Resources (Pty) Ltd will specify that the appointed contractor is required to comply with all the environmental measures specified in the EMPr. This will include avoiding unnecessary disturbance of natural vegetation and the rehabilitation of each drill site, immediately after drilling has been completed. All tracks to the drill sites must be rehabilitated at the end of the prospecting programme. The financial provision provides for the final checking of all sites before site clearance.

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

The quantum of the financial provision required is therefore: R40 166. The Company must annually update and review the quantum of the financial provision *(Regulation 54 (2))*.TABLE FOR CALCULATIONS ATTACHED BELOW

Table 28:Quantum Calculation

CALCULATION OF THE QUANTUM

Applicant: **ULIBO RESOURCES (PTY) LTD** **DMRE REF: MP 30/5/ MP 30/5/1/1/2/16911 PR**
Evaluator: **Singo Consulting (Pty) Ltd** **Date:17 M**

No.	Description	Unit	A Quantity	B Master Rate	C ultiplicati 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	5683	49	0,2	0,3	16708,02
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	0,4	0,3	16214,904
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		32922,924

1	Preliminary and General	3950,75088	weighting factor 2 1	3950,75088
2	Contingencies	3292,2924		3292,2924
			Subtotal 2	40165,97
			VAT (15%)	
			Grand Total	**40166**

Sign THILIVHALI NDOU
Date 17/03/2023

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

Ulibo Resources (Pty) Ltd undertakes to ensure financial provision for rehabilitation plan implementation.

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

- Monitoring of Impact Management Actions
- Monitoring and reporting frequency
- Responsible persons
- Time period for implementing impact management actions.
- Mechanism for monitoring compliance

Source activity monitoring and reporting	Impacts requiring monitoring programmes	Functional requirements for monitoring	Roles and responsibilities	Frequency and time periods for implementing impact management actions
Site establishment	Dust Noise Vegetation removal Disruption of animal life Habitat destruction Loss of geology	• Daily dust and noise monitoring • Daily monitoring of plant species of ecological Importance	Geologist and project manager	Daily and monthly
Traffic management	Animal life disruption Traffic congestion Disruption of surrounding businesses	Monitor traffic frequency and access to the site, and notify surrounding business owners	Geologist and project manager	Monthly and when necessary
Ablution facility	Land contamination Water contamination Health hazard	• Service the toilet facility • Monitor water quality	Geologist and project manager	Monthly and when necessary
Existing/access routes	Animal life disruption Disruption of surrounding businesses Traffic control	• Monitor traffic frequency and access to the site, and notify surrounding business owners	Geologist and project manager	Monthly and when necessary

		• Monitor speed limits on the road		

5. INDICATE THE FREQUENCY OF THE SUBMISSION OF THE PERFORMANCE ASSESSMENT/ ENVIRONMENTAL AUDIT REPORT.

Regular monitoring of all the environmental management procedures and mitigation measures will be carried out by Ulibo Resources (Pty) Ltd (to ensure that the provisions of this EMPr are adhered to. Formal monitoring and performance assessments of the EMPr will be conducted monthly.

6. ENVIRONMENTAL AWARENESS PLAN

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

Environmental Awareness Training will be presented by Ulibo Resources (Pty) Ltd to inform employees and contractors of the environmental risk their work or interaction with the sensitive environment may pose. Training will be conducted as part of the induction process for all employees (including contractors) who will perform work in terms of the proposed activities. Proof of all training provided will be kept on-site. Environmental Awareness Training will, at a minimum, cover the topics listed in table 27 below.

Table 29: Environmental awareness plan.

Air quality	• Activities that impact air quality; speeding on roads, dust suppression requirements, etc. • Negative impacts on the receiving environment if mitigation measures are not implemented.
Surface and groundwater	• Risks posed to groundwater by fuel and chemical handling, and damage to riparian vegetation. • Incident report and emergency requirements. • Importance of reusing water and preventing spillages.
Cultural heritage	• Respect all cultures and beliefs. • How to report sites of heritage importance (e.g. fossil finds) identified during operations.
Fauna	• Overview of the fauna found on/around site and the uniqueness thereof. • Mitigation measures that all contractors and employees need to abide

	by. • No contractor or personnel allowed to catch or kill any species. • How sightings should be reported if further actions are required (e.g. catch and release).
Flora	• Overview of on-site flora diversity and determining whether it is endangered. • Measures taken by the company to protect species. • No contractor or personnel allowed to remove, harvest or destroy any flora species unless clearly instructed based on the site establishment and operational plans.
Waste management	• Measures to avoid waste generation and minimise/reduce waste.
Traffic strategies	• Stay on designated roads; do not build new roads in areas not earmarked for prospecting. • Be aware of the fauna species and avoid collisions.
Emergency preparedness and response	• Incident and emergency reporting requirements.
General rules and conduct	• Respect the sensitive environment. • Do not litter. • Respect each other and different cultures. • Adhere to safety and health requirements.

7. WAY RISKS WILL BE DEALT WITH TO AVOID POLLUTION OR THE DEGRADATION OF THE ENVIRONMENT.

All employees must attend environmental awareness training (before prospecting) to inform them of any environmental risks which may result from their work and it must be dealt with to avoid pollution and environmental degradation. Induction courses will be provided by a reputable trainer.

8. SPECIFIC INFORMATION REQUIRED BY THE COMPETENT AUTHORITY

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

No risks have been identified other than those noted in this document. These risks will be communicated to all contractors, who will also be provided with a copy of the approved EMPr. Environmental training needs for each section must be identified and addressed to ensure environmental management is part of daily operations. The environmental risk responsibilities guide

the training requirements of each individual, Environmental training recommended for the different levels of management guide the training needs identification process. This is a minimum guideline and any additional training can be added where section-specific issues or high-risk items require training and awareness. It is the responsibility of the line manager to ensure environmental training needs for individual staff members are identified, agreed to, facilitated and tracked.

9. 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 were 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:

April 2023

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 013 656 1474
Saveways Centre, First Floor, Mandela Drive, Witbank, 1035
Enquiries: Ms Lerato Mariri **Ref:** MP 30/5/1/1/2/17258PR
Subdirectorate: Mineral Laws

Registered Mail

The Directors
Ulibo Resources (Pty) Ltd
Postnet Suit 39
Witbank
1035

FAX NO: 086 599 8537

Dear Sir/Madam

APPLICATION FOR A PROSPECTING RIGHT IN TERMS OF SECTION 16 OF THE MINERAL AND PETROLEUM RESOURCES DEVELOPMENT ACT, 2002 (ACT 28 OF 2002): PORTION OF PORTION OF THE REMAINING EXTENT OF THE FARM ARENDSFONTEIN 464 JS, SITUATED IN THE MAGISTERIAL DISTRICT OF MIDDELBURG.

1. In view of the above please be informed that your abovementioned application for the prospecting of **Coal** has been accepted in terms of Section 16 of the Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002).

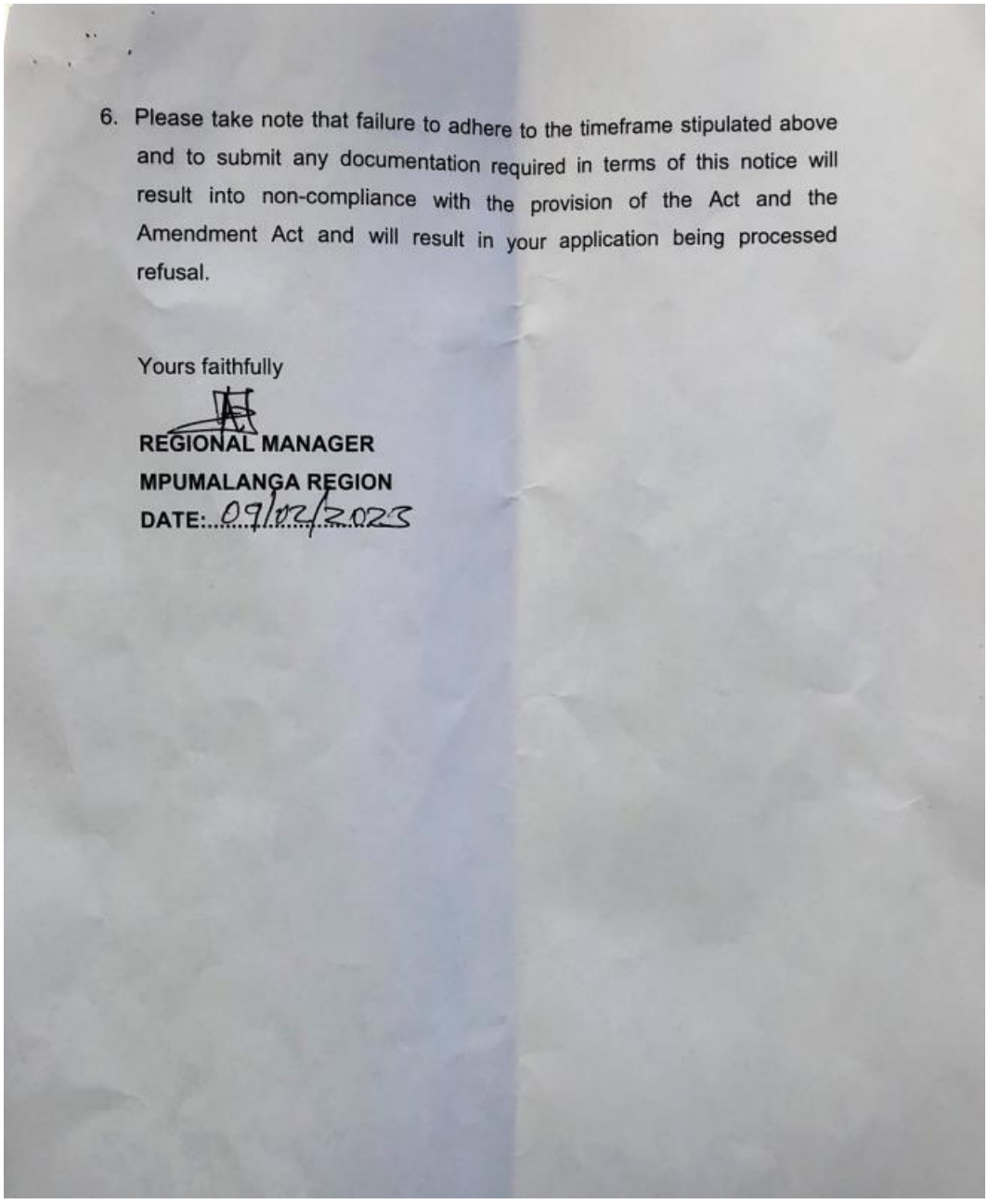
2. Please take notice that in terms of section 16(4) of the Act as amended by section 12(d)(a) and 12(d)(b) of the Amendment Act, you are required to:

3.1 to consult in the prescribed manner with the landowner, lawful occupier and any interested and affected party and the Land Restitution Commission and submit the result of such consultation on or before the .....24 March.....2023

4. You are in terms of section 17(1) of the Act as amended by section 13(c) of the Amendment Act required to give effect to the objects referred to in section 2(d) of the Act **to ensure that you are BBBEE compliant**. Therefore please submit on or before .....28 February 2023..... to this office for the attention of the writer hereon any documentation proving such including but not limited to:-

4.1 Certified copies of share certificates and share holders register
4.2 Certified copies of Shareholders agreements
4.3 Certified copies articles and memorandum of association of the company
4.4 Trust deed documents and letters of authority for any trust holding shares
4.5 Details relating to funding (all relevant agreements)
4.6 Any other information that may be necessary to explain and serve as evidence that the applicant meets the appropriate HDSA ownership and/or compliance requirements of the aforesaid Act and Mining Charter; **thereby including women and communities in your structure.**

5. Please submit **within 14 days** from date of this letter for the attention of ***Mr Phasha 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.***

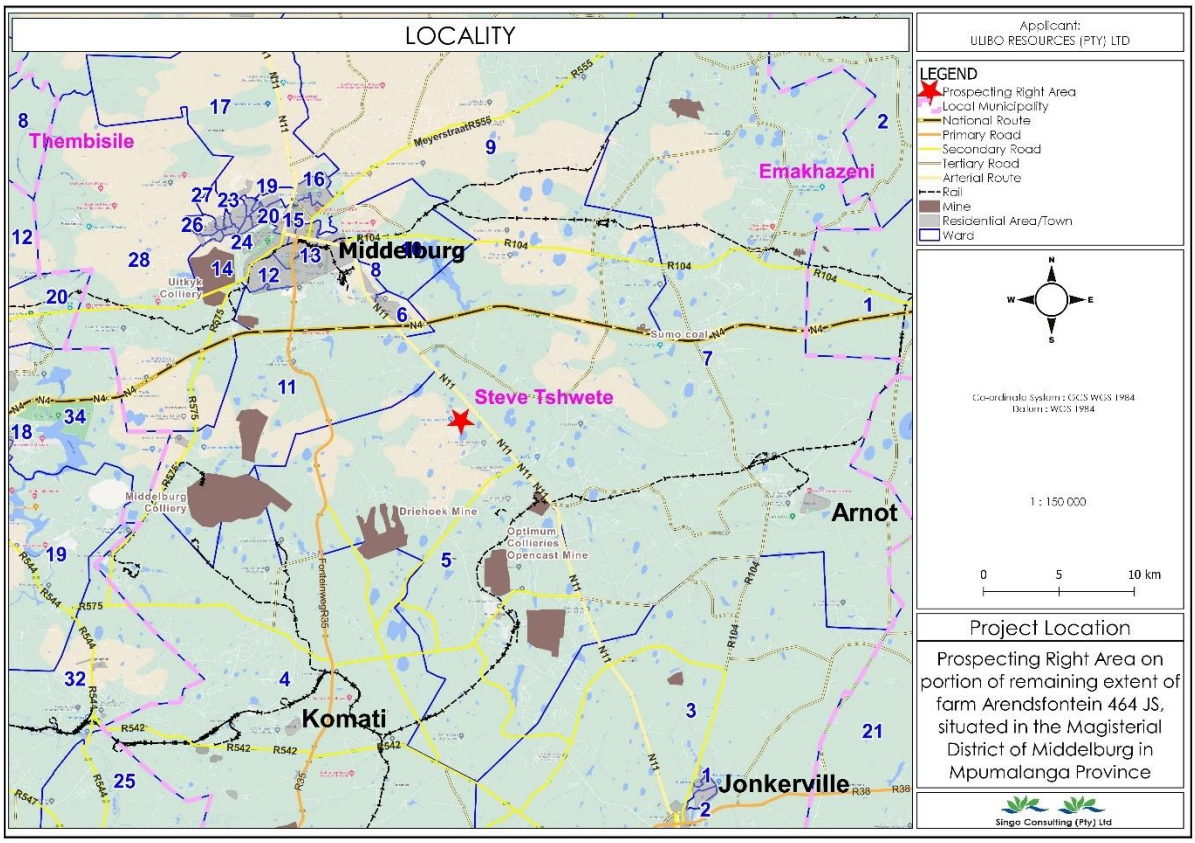


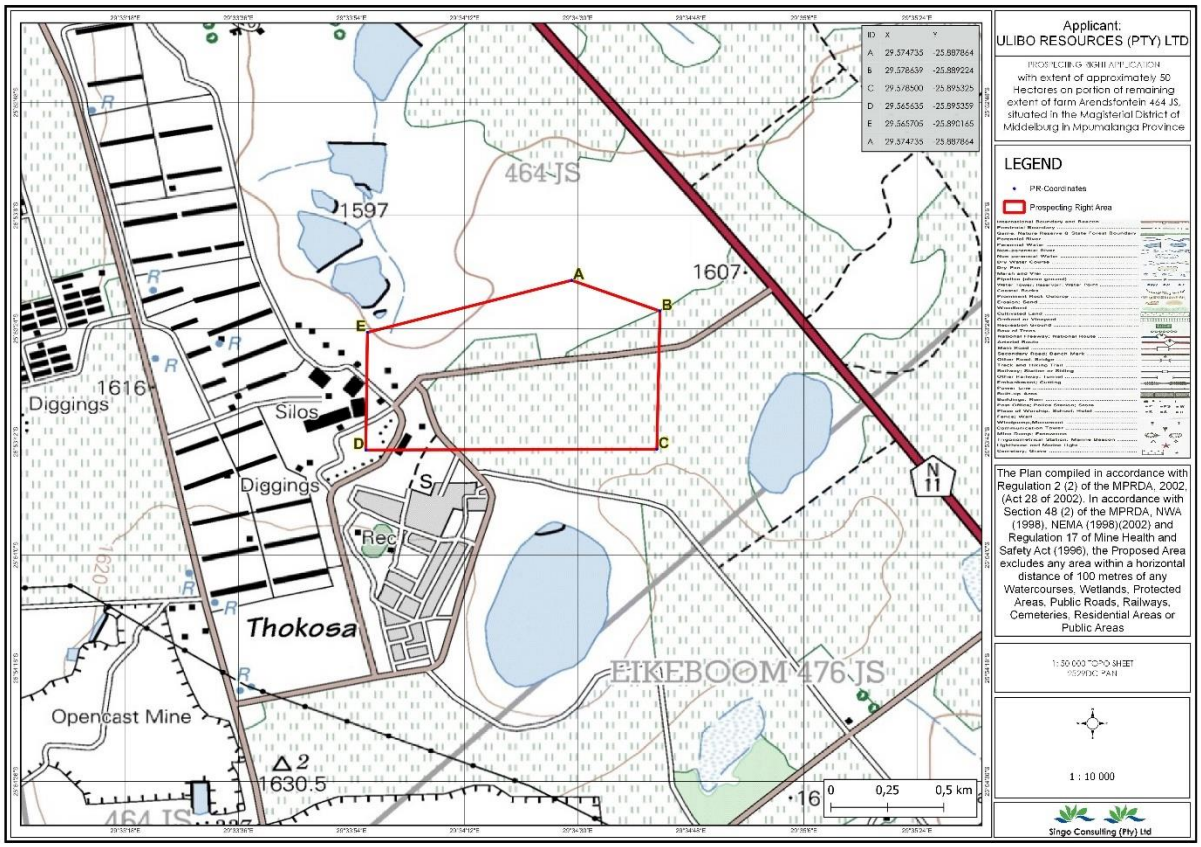
6. Please take note that failure to adhere to the timeframe stipulated above and to submit any documentation required in terms of this notice will result into non-compliance with the provision of the Act and the Amendment Act and will result in your application being processed refusal.

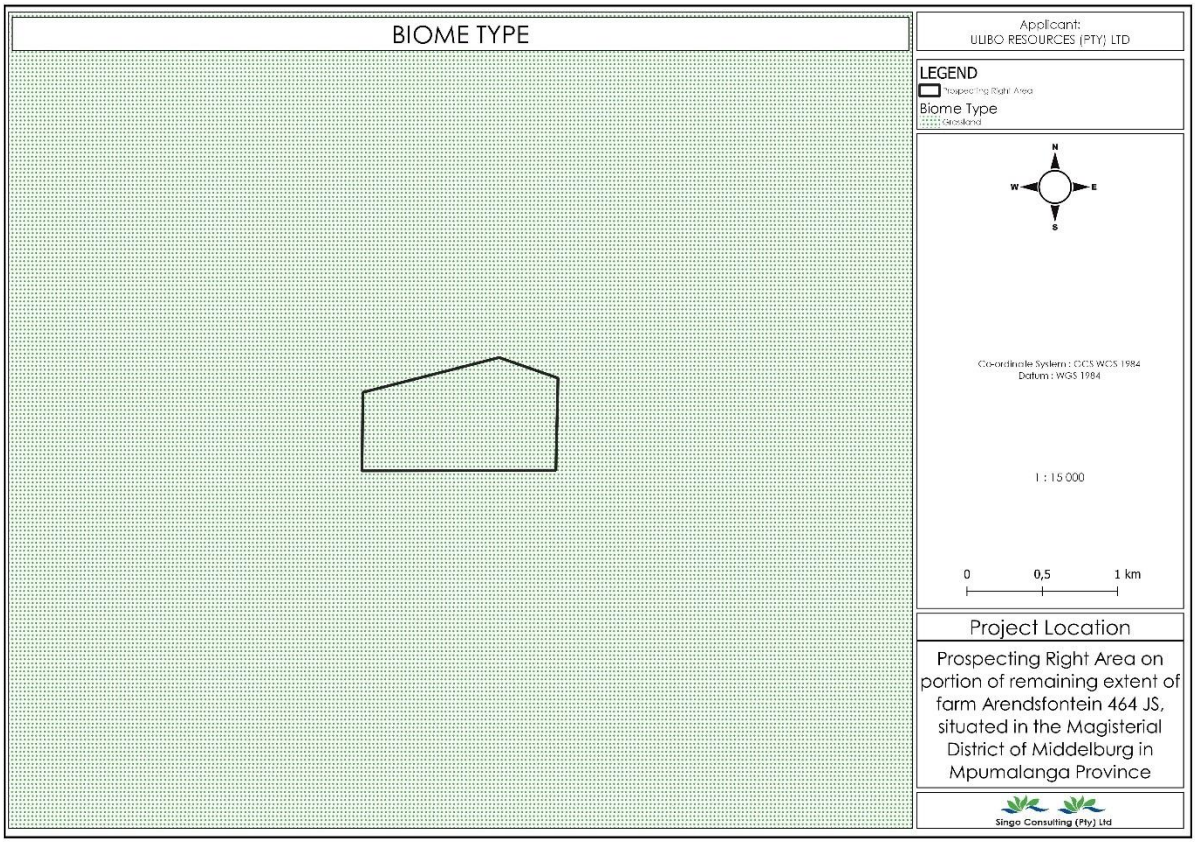
Yours faithfully

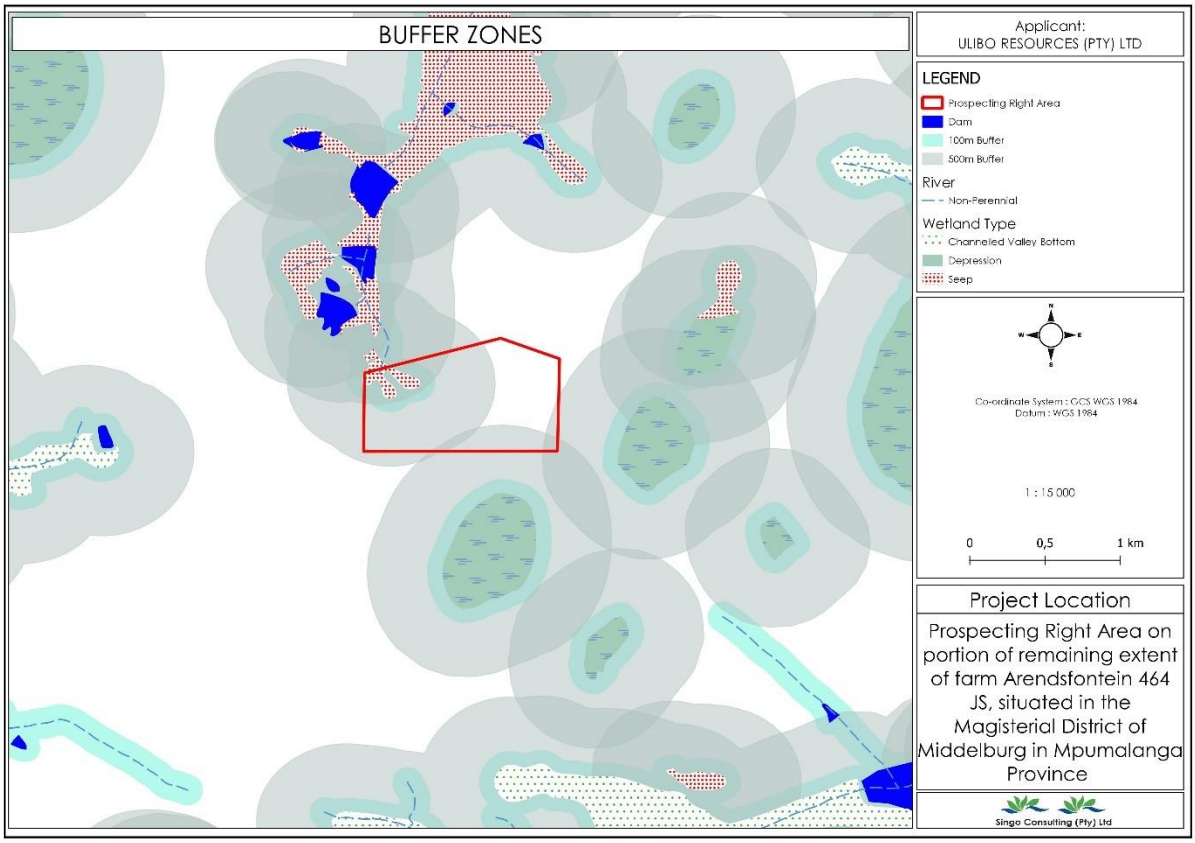
REGIONAL MANAGER
MPUMALANGA REGION
DATE: 09/02/2023

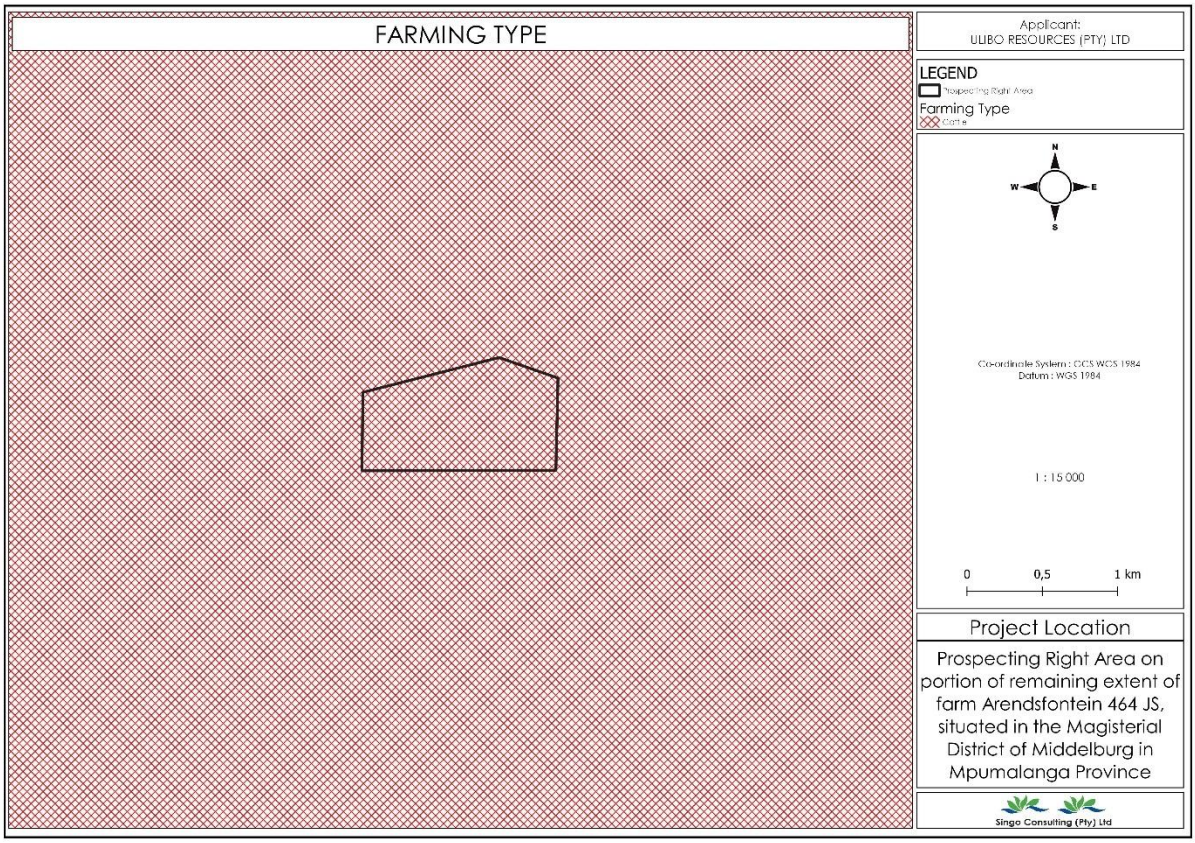
Appendix 2: Maps

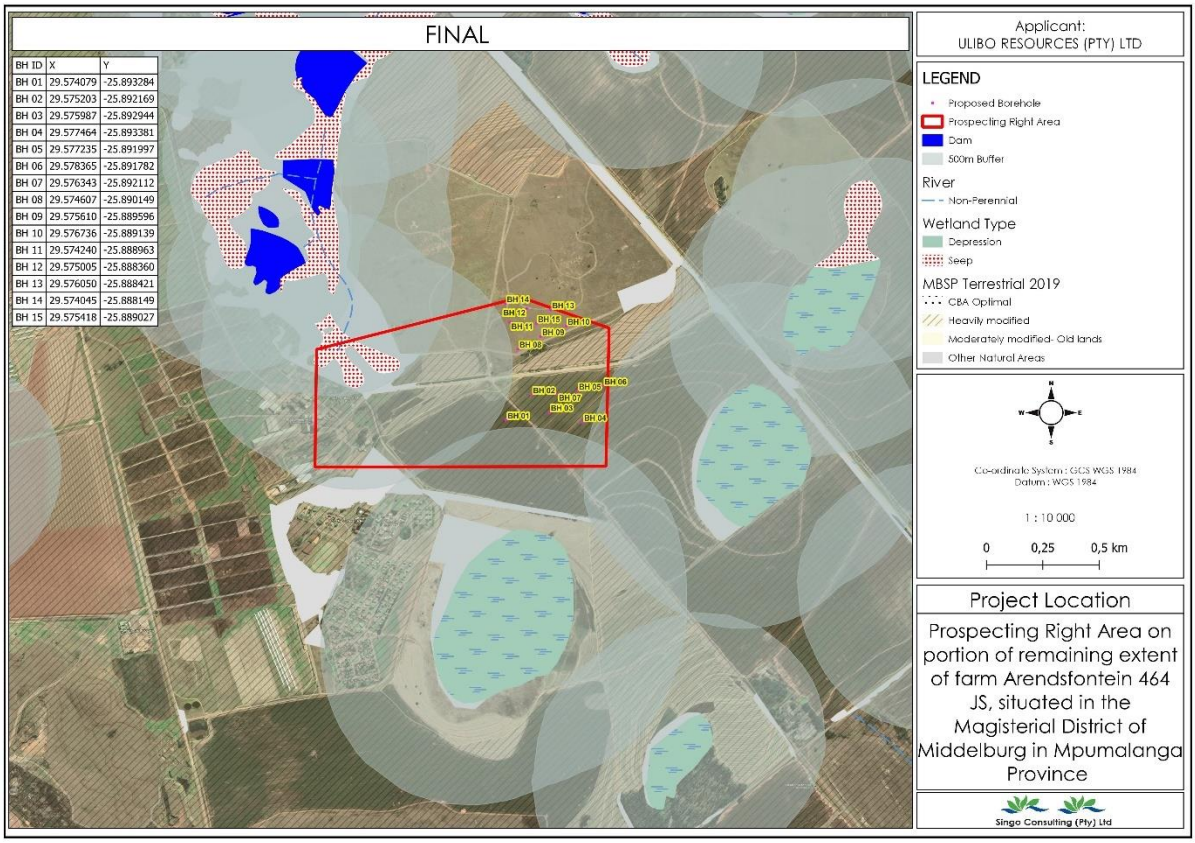


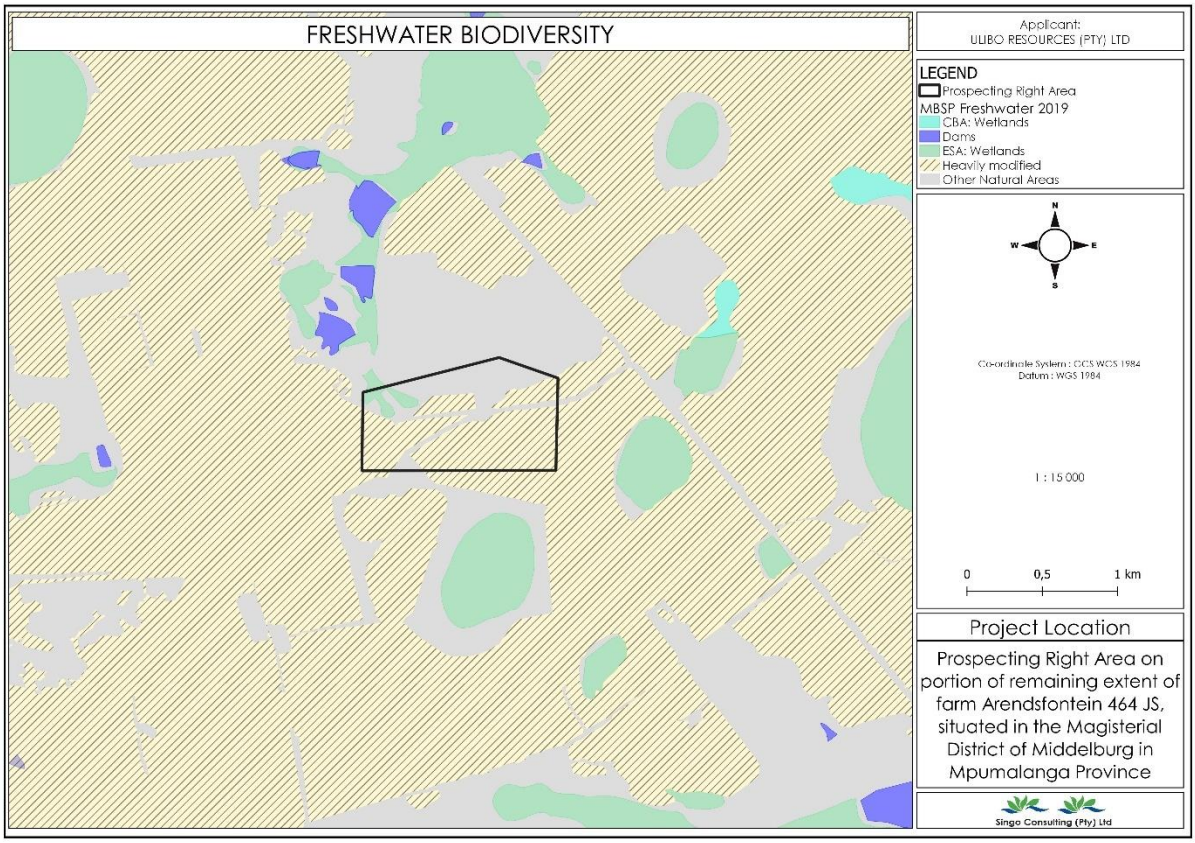


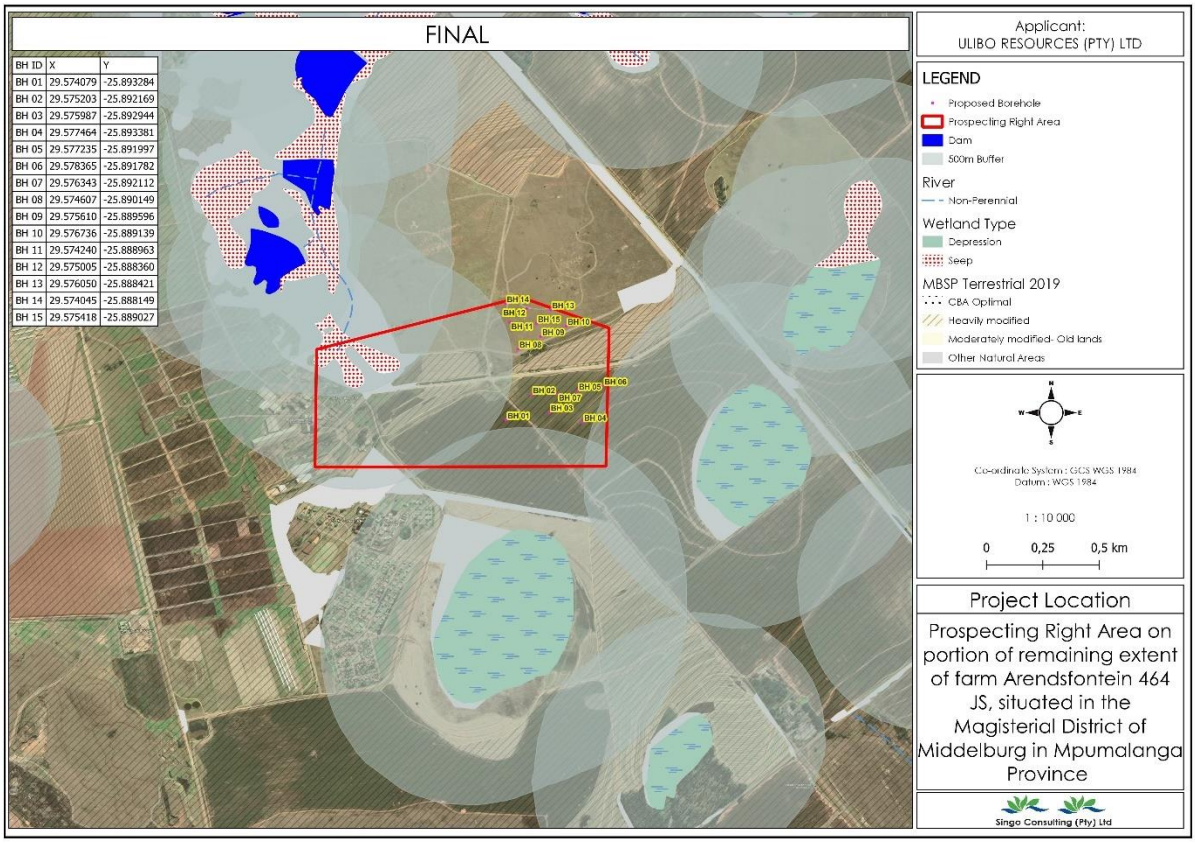

BIOME TYPE
Applicant:
ULIBO RESOURCES (PTY) LTD
LEGEND
Prospecting Right Area
Biome Type
Grassland
N
W
E
S
Co-ordinate System : GCS WGS 1984
Datum : WGS 1984
1 : 15 000
0
0,5
1 km
Project Location
Prospecting Right Area on portion of remaining extent of farm Arendsfontein 464 JS, situated in the Magisterial District of Middelburg in Mpumalanga Province
Singo Consulting (Pty) Ltd

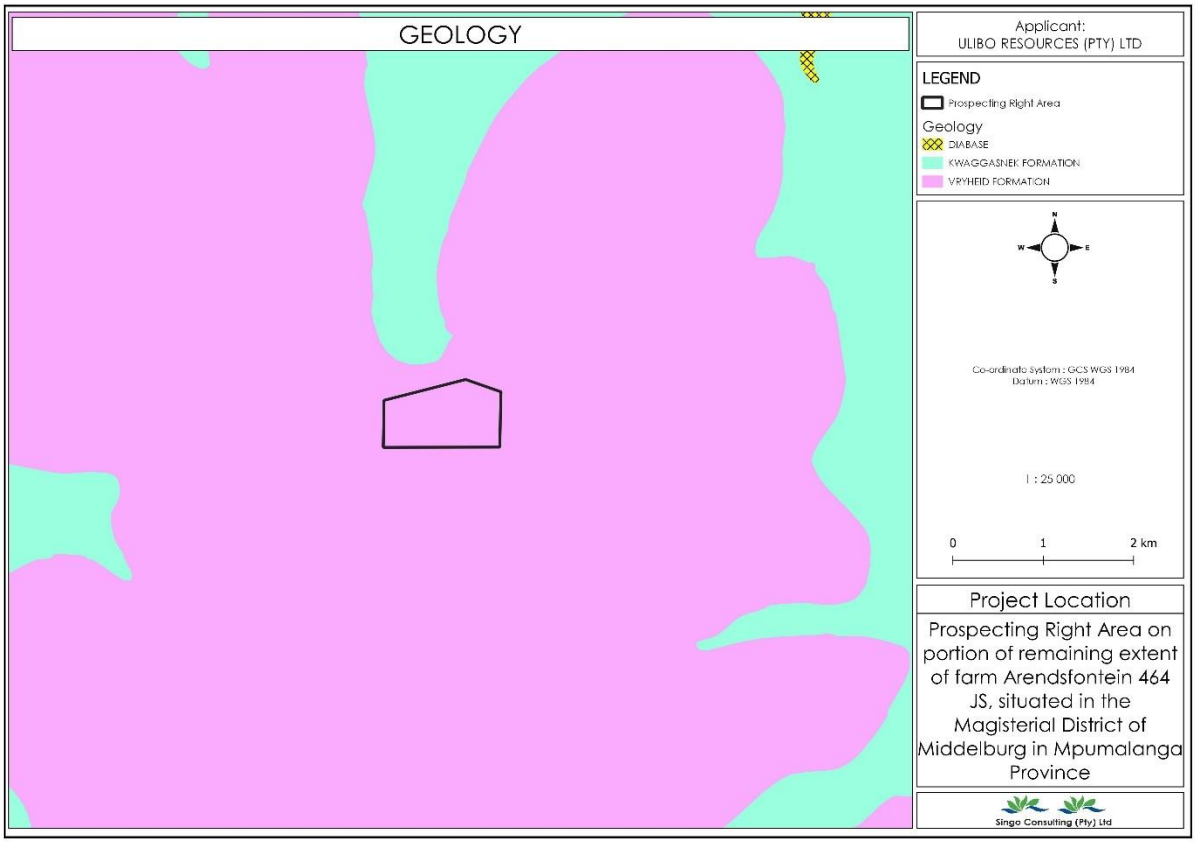

BUFFER ZONES
Applicant:
ULIBO RESOURCES (PTY) LTD
LEGEND
Prospecting Right Area
Dam
100m Buffer
500m Buffer
River
Non-Perennial
Wetland Type
Channeled Valley Bottom
Depression
Seep
N
W
E
S
Co-ordinate System : GCS WGS 1984
Datum : WGS 1984
1 : 15 000
0
0,5
1 km
Project Location
Prospecting Right Area on portion of remaining extent of farm Arendsfontein 464 JS, situated in the Magisterial District of Middelburg in Mpumalanga Province
Singo Consulting (Pty) Ltd

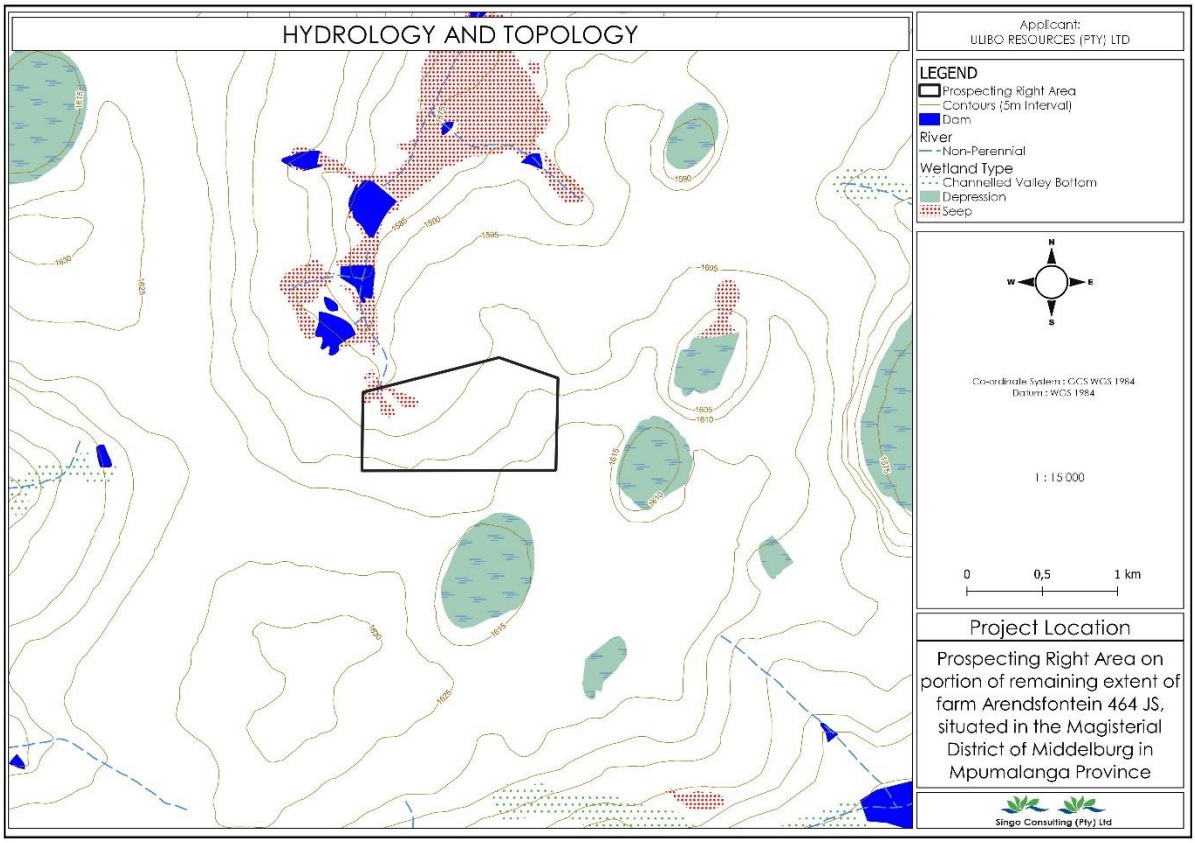

FARMING TYPE
Applicant:
ULIBO RESOURCES (PTY) LTD
LEGEND
Prospecting Right Area
Farming Type
Cattle
N
W
E
S
Co-ordinate System : GCS WGS 1984
Datum : WGS 1984
1 : 15 000
0
0,5
1 km
Project Location
Prospecting Right Area on portion of remaining extent of farm Arendsfontein 464 JS, situated in the Magisterial District of Middelburg in Mpumalanga Province
Singo Consulting (Pty) Ltd

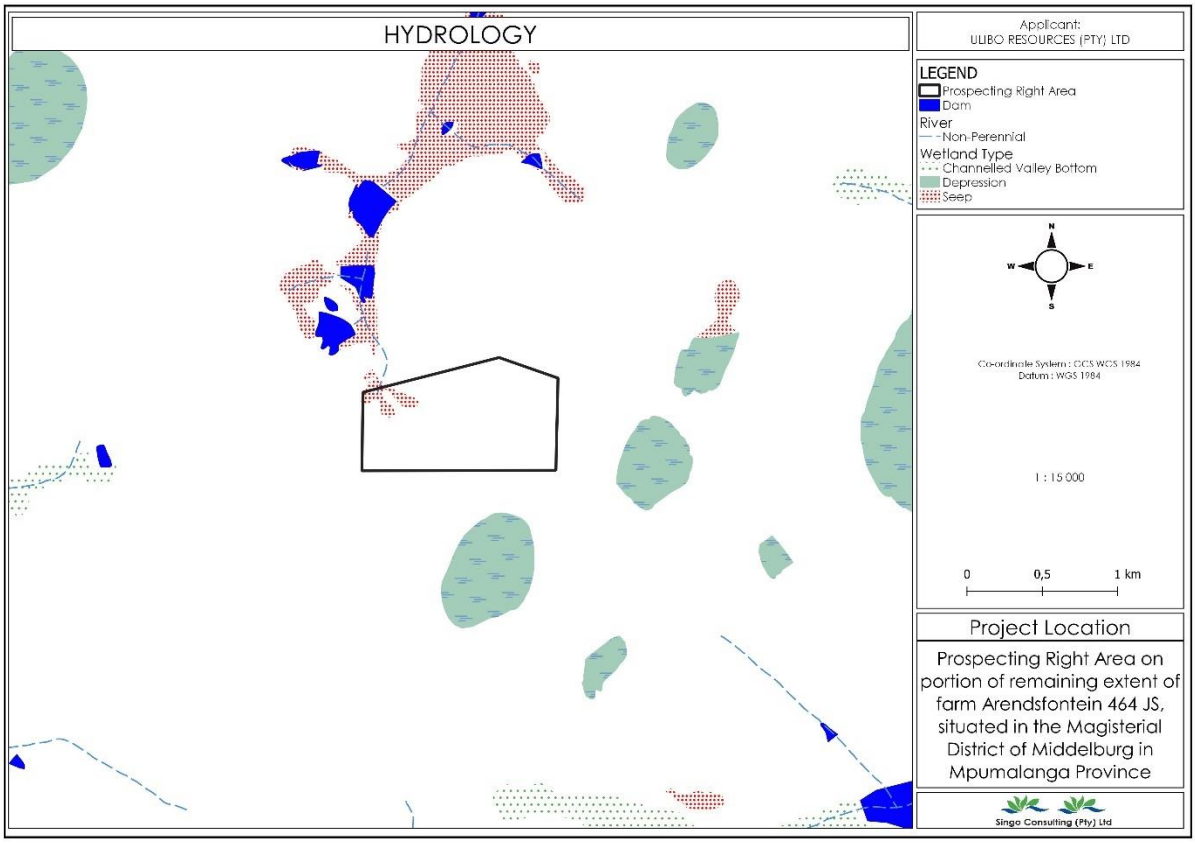

FINAL
BH ID X Y
BH 01 29.574079 -25.893284
BH 02 29.575203 -25.892169
BH 03 29.575987 -25.892944
BH 04 29.577464 -25.893381
BH 05 29.577235 -25.891997
BH 06 29.578365 -25.891782
BH 07 29.576343 -25.892112
BH 08 29.574607 -25.890149
BH 09 29.575610 -25.889596
BH 10 29.576736 -25.889139
BH 11 29.574240 -25.888963
BH 12 29.575005 -25.888360
BH 13 29.576050 -25.888421
BH 14 29.574045 -25.888149
BH 15 29.575418 -25.889027
Applicant:
ULIBO RESOURCES (PTY) LTD
LEGEND
Proposed Borehole
Prospecting Right Area
Dam
500m Buffer
River
Non-Perennial
Wetland Type
Depression
Seep
MBSP Terrestrial 2019
CBA Optimal
Heavily modified
Moderately modified- Old lands
Other Natural Areas
N
W
E
S
Co-ordinate System : GCS WGS 1984
Datum : WGS 1984
1 : 10 000
0
0,25
0,5 km
Project Location
Prospecting Right Area on portion of remaining extent of farm Arendsfontein 464 JS, situated in the Magisterial District of Middelburg in Mpumalanga Province
Singo Consulting (Pty) Ltd

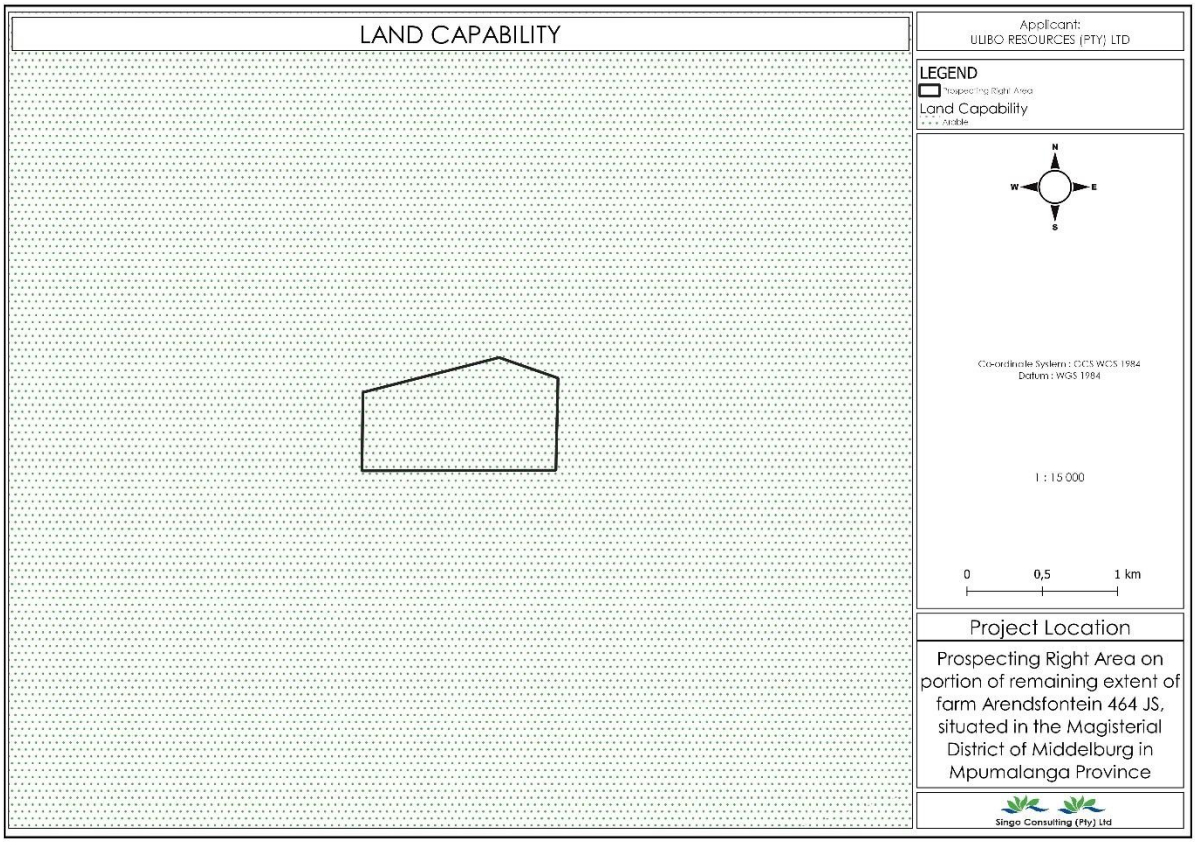

FRESHWATER BIODIVERSITY
Applicant:
ULIBO RESOURCES (PTY) LTD
LEGEND
Prospecting Right Area
MBSP Freshwater 2019
CBA: Wetlands
Dams
ESA: Wetlands
Heavily modified
Other Natural Areas
N
W
E
S
Co-ordinate System : GCS WGS 1984
Datum : WGS 1984
1 : 15 000
0
0,5
1 km
Project Location
Prospecting Right Area on portion of remaining extent of farm Arendsfontein 464 JS, situated in the Magisterial District of Middelburg in Mpumalanga Province
Singo Consulting (Pty) Ltd

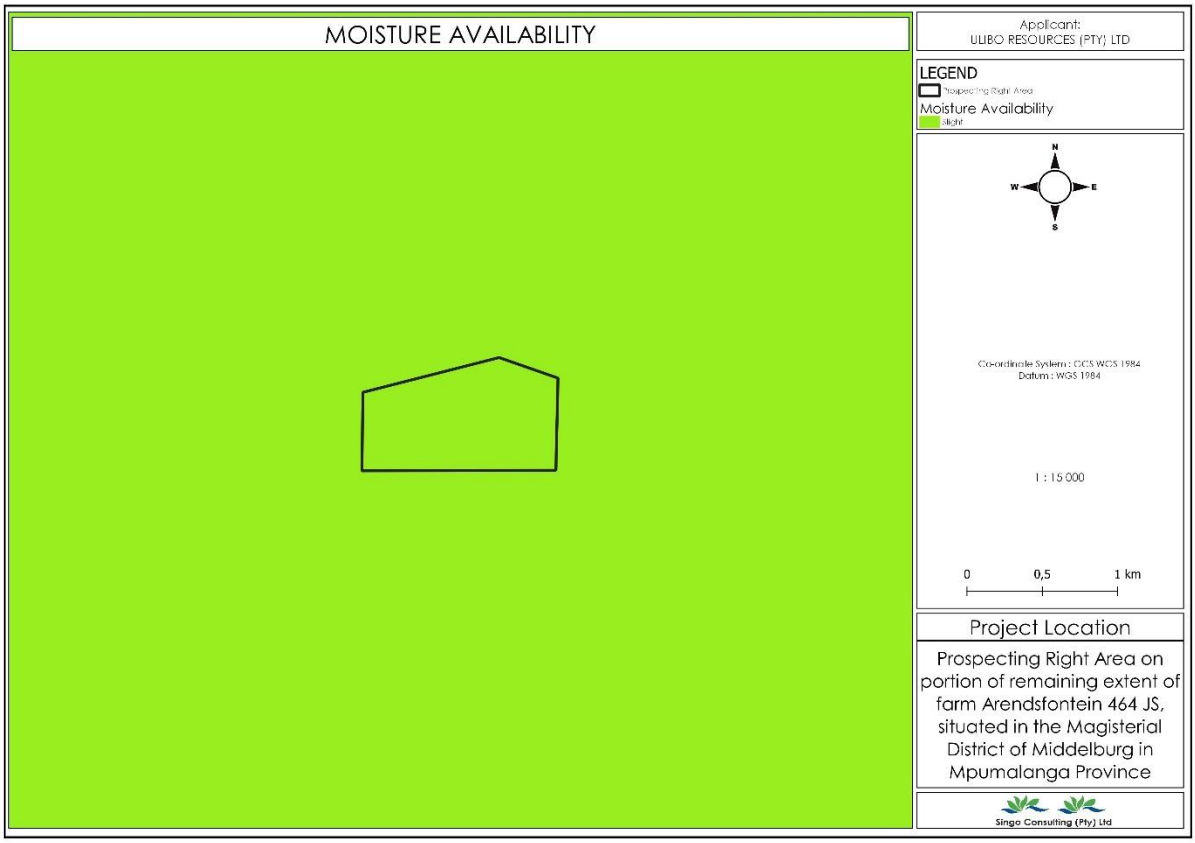

FINAL
BH ID X Y
BH 01 29.574079 -25.893284
BH 02 29.575203 -25.892169
BH 03 29.575987 -25.892944
BH 04 29.577464 -25.893381
BH 05 29.577235 -25.891997
BH 06 29.578365 -25.891782
BH 07 29.576343 -25.892112
BH 08 29.574607 -25.890149
BH 09 29.575610 -25.889596
BH 10 29.576736 -25.889139
BH 11 29.574240 -25.888963
BH 12 29.575005 -25.888360
BH 13 29.576050 -25.888421
BH 14 29.574045 -25.888149
BH 15 29.575418 -25.889027
Applicant:
ULIBO RESOURCES (PTY) LTD
LEGEND
Proposed Borehole
Prospecting Right Area
Dam
500m Buffer
River
Non-Perennial
Wetland Type
Depression
Seep
MBSP Terrestrial 2019
CBA Optimal
Heavily modified
Moderately modified- Old lands
Other Natural Areas
Co-ordinate System : GCS WGS 1984
Datum : WGS 1984
1 : 10 000
0
0,25
0,5 km
Project Location
Prospecting Right Area on portion of remaining extent of farm Arendsfontein 464 JS, situated in the Magisterial District of Middelburg in Mpumalanga Province
Singo Consulting (Pty) Ltd

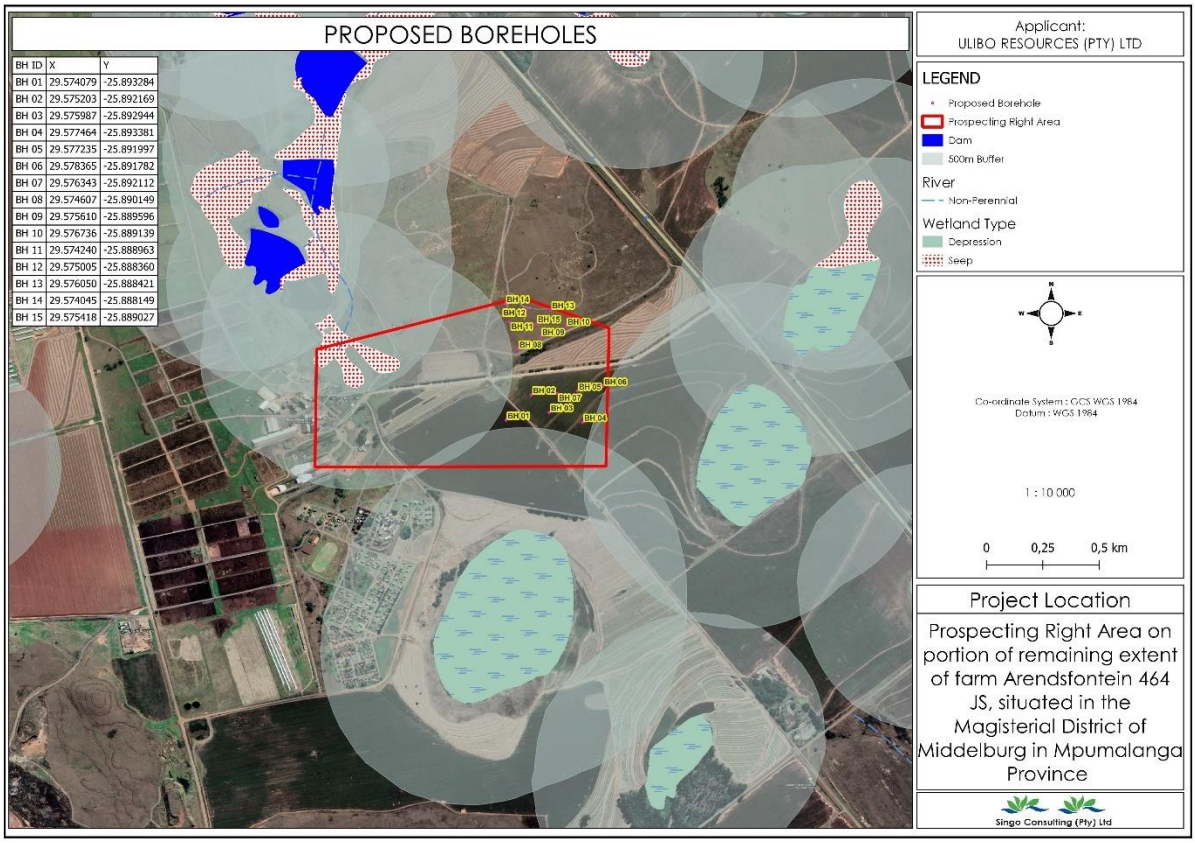

GEOLOGY
Applicant:
ULIBO RESOURCES (PTY) LTD
LEGEND
Prospecting Right Area
Geology
DIABASE
KWAGGASNEK FORMATION
VRYHEID FORMATION
N
W
E
S
Co-ordinate System : GCS WGS 1984
Datum : WGS 1984
1 : 25 000
0
1
2 km
Project Location
Prospecting Right Area on portion of remaining extent of farm Arendsfontein 464 JS, situated in the Magisterial District of Middelburg in Mpumalanga Province
Singo Consulting (Pty) Ltd

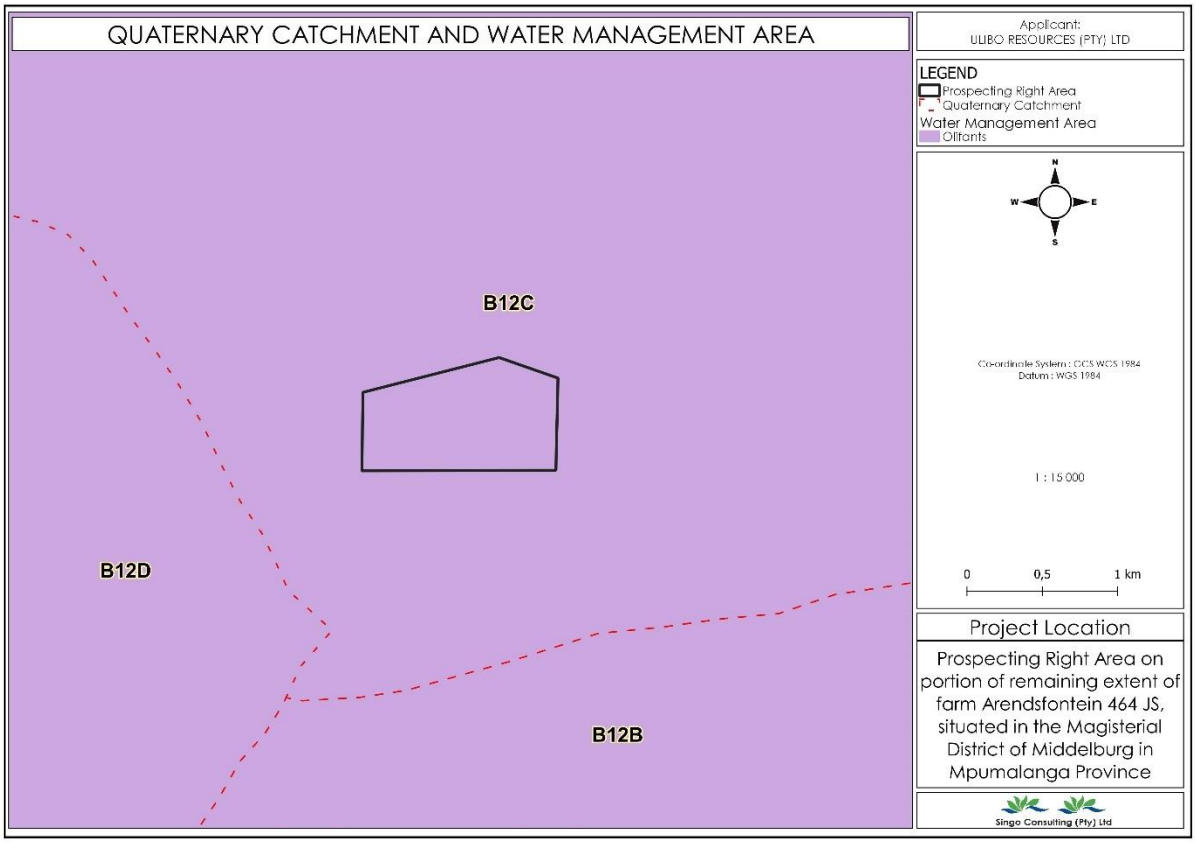

HYDROLOGY AND TOPOLOGY
Applicant:
ULIBO RESOURCES (PTY) LTD
LEGEND
Prospecting Right Area
Contours (5m Interval)
Dam
River
Non-Perennial
Wetland Type
Channelled Valley Bottom
Depression
Seep
N
W
E
S
Co-ordinate System : GCS WGS 1984
Datum : WGS 1984
1 : 15 000
0
0,5
1 km
Project Location
Prospecting Right Area on portion of remaining extent of farm Arendsfontein 464 JS, situated in the Magisterial District of Middelburg in Mpumalanga Province
Singo Consulting (Pty) Ltd

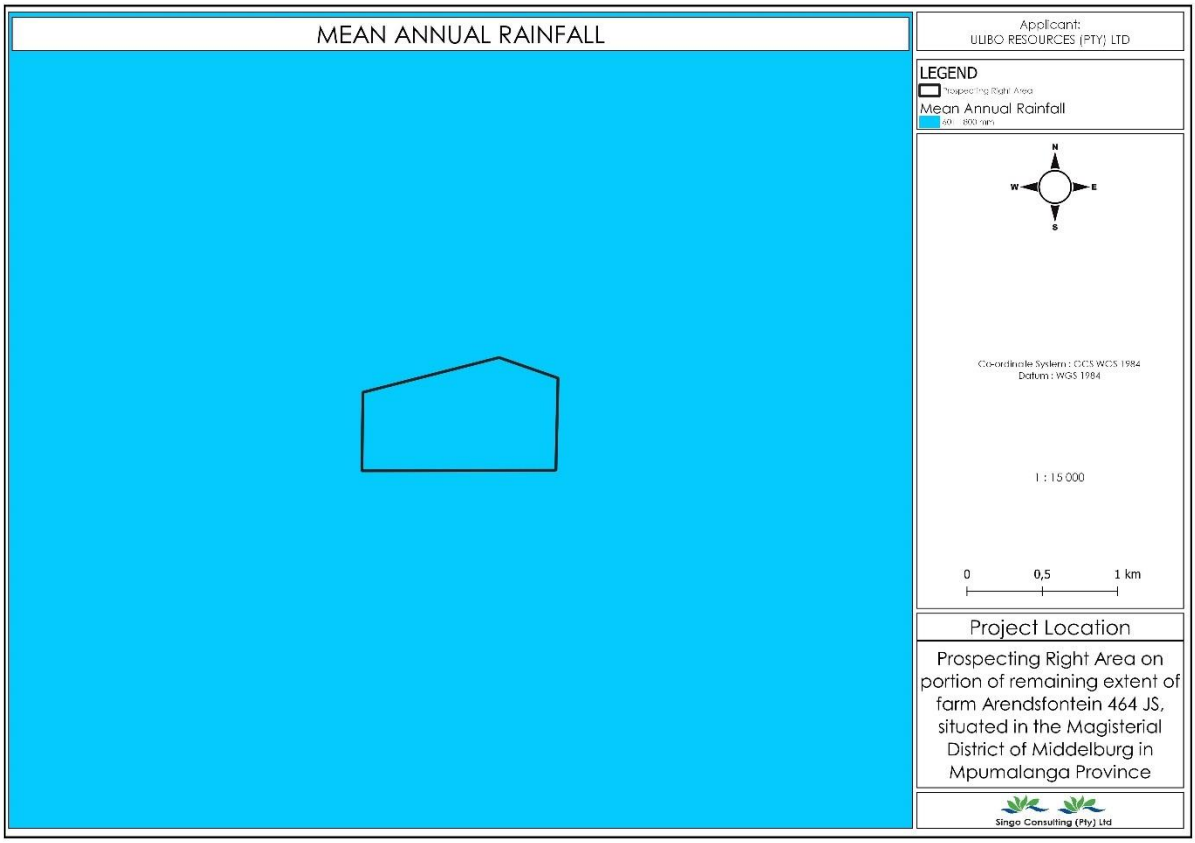

HYDROLOGY
Applicant:
ULIBO RESOURCES (PTY) LTD
LEGEND
Prospecting Right Area
Dam
River
Non-Perennial
Wetland Type
Channelled Valley Bottom
Depression
Seep
N
W
E
S
Co-ordinate System : GCS WGS 1984
Datum : WGS 1984
1 : 15 000
0
0,5
1 km
Project Location
Prospecting Right Area on portion of remaining extent of farm Arendsfontein 464 JS, situated in the Magisterial District of Middelburg in Mpumalanga Province
Singo Consulting (Pty) Ltd

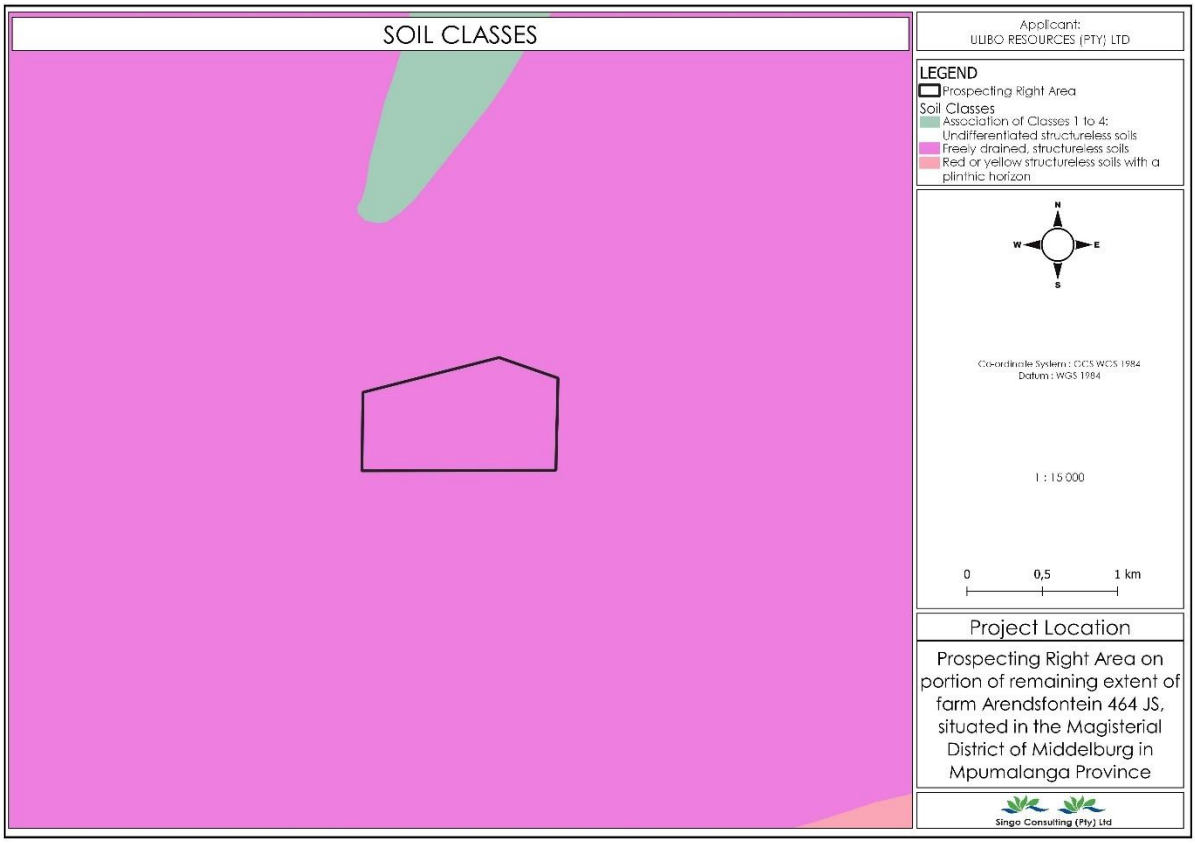

LAND CAPABILITY
Applicant:
ULIBO RESOURCES (PTY) LTD
LEGEND
Land Capability
N
W
E
S
Co-ordinate System : GCS WGS 1984
Datum : WGS 1984
1 : 15 000
0
0,5
1 km
Project Location
Prospecting Right Area on portion of remaining extent of farm Arendsfontein 464 JS, situated in the Magisterial District of Middelburg in Mpumalanga Province
Singo Consulting (Pty) Ltd

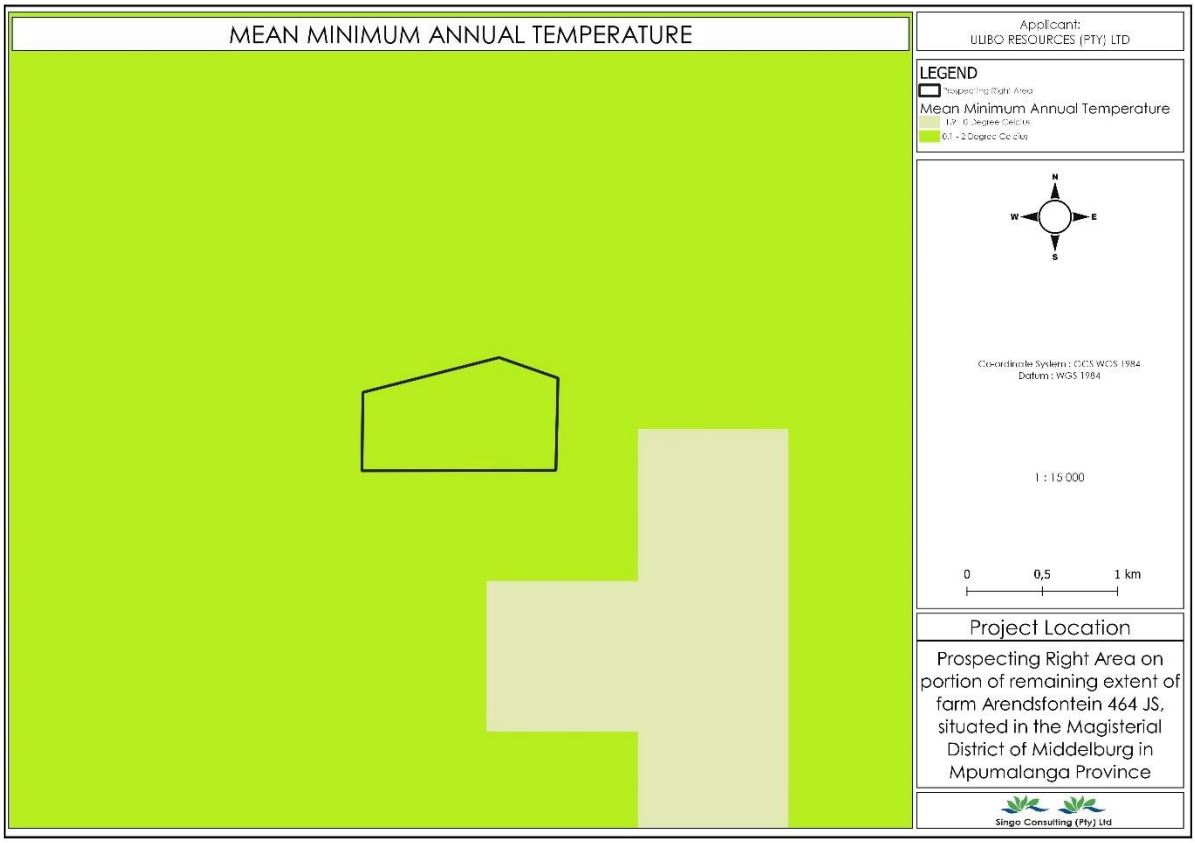

MOISTURE AVAILABILITY
Applicant:
ULIBO RESOURCES (PTY) LTD
LEGEND
Prospecting Right Area
Moisture Availability
Slight
N
W
E
S
Co-ordinate System : GCS WGS 1984
Datum : WGS 1984
1 : 15 000
0
0,5
1 km
Project Location
Prospecting Right Area on portion of remaining extent of farm Arendsfontein 464 JS, situated in the Magisterial District of Middelburg in Mpumalanga Province
Singo Consulting (Pty) Ltd

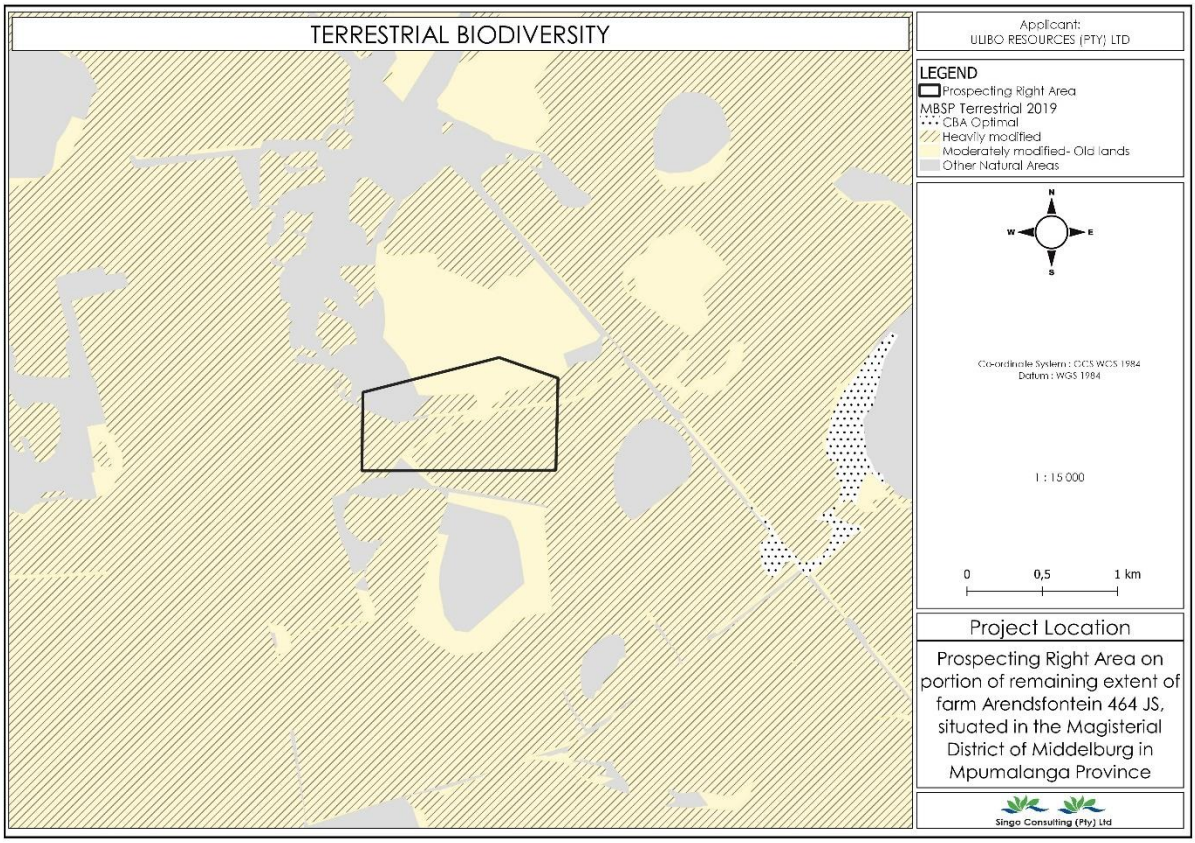

PROPOSED BOREHOLES
BH ID X Y
BH 01 29.574079 -25.893284
BH 02 29.575203 -25.892169
BH 03 29.575987 -25.892944
BH 04 29.577464 -25.893381
BH 05 29.577235 -25.891997
BH 06 29.578365 -25.891782
BH 07 29.576343 -25.892112
BH 08 29.574607 -25.890149
BH 09 29.575610 -25.889596
BH 10 29.576736 -25.889139
BH 11 29.574240 -25.888963
BH 12 29.575005 -25.888360
BH 13 29.576050 -25.888421
BH 14 29.574045 -25.888149
BH 15 29.575418 -25.889027
Applicant:
ULIBO RESOURCES (PTY) LTD
LEGEND
Proposed Borehole
Prospecting Right Area
Dam
500m Buffer
River
Non-Perennial
Wetland Type
Depression
Seep
N
W
E
S
Co-ordinate System : GCS WGS 1984
Datum : WGS 1984
1 : 10 000
0
0,25
0,5 km
Project Location
Prospecting Right Area on portion of remaining extent of farm Arendsfontein 464 JS, situated in the Magisterial District of Middelburg in Mpumalanga Province
Singo Consulting (Pty) Ltd

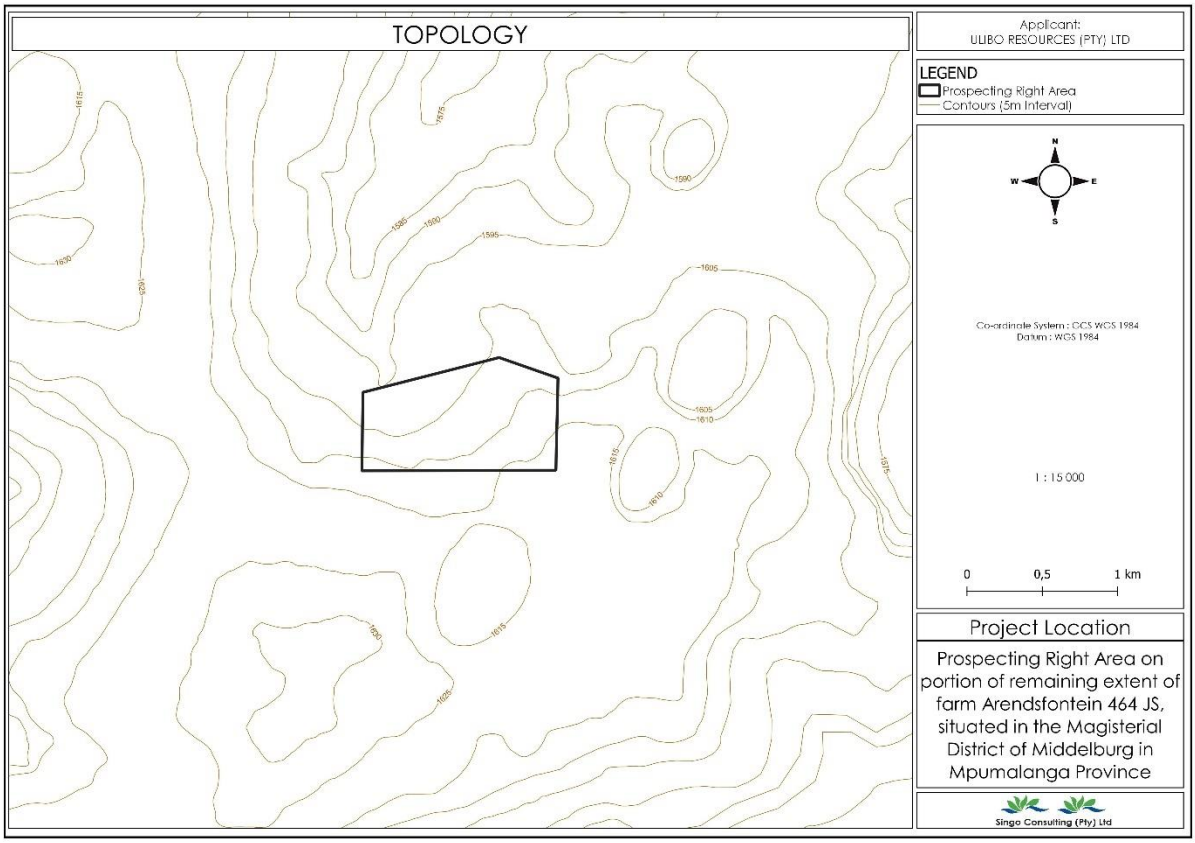

QUATERNARY CATCHMENT AND WATER MANAGEMENT AREA
B12C
B12D
B12B
Applicant:
ULIBO RESOURCES (PTY) LTD
LEGEND
Prospecting Right Area
Quaternary Catchment
Water Management Area
Olifants
N
W
E
S
Co-ordinate System : CCS WGS 1984
Datum : WGS 1984
1 : 15 000
0
0,5
1 km
Project Location
Prospecting Right Area on portion of remaining extent of farm Arendsfontein 464 JS, situated in the Magisterial District of Middelburg in Mpumalanga Province
Singo Consulting (Pty) Ltd

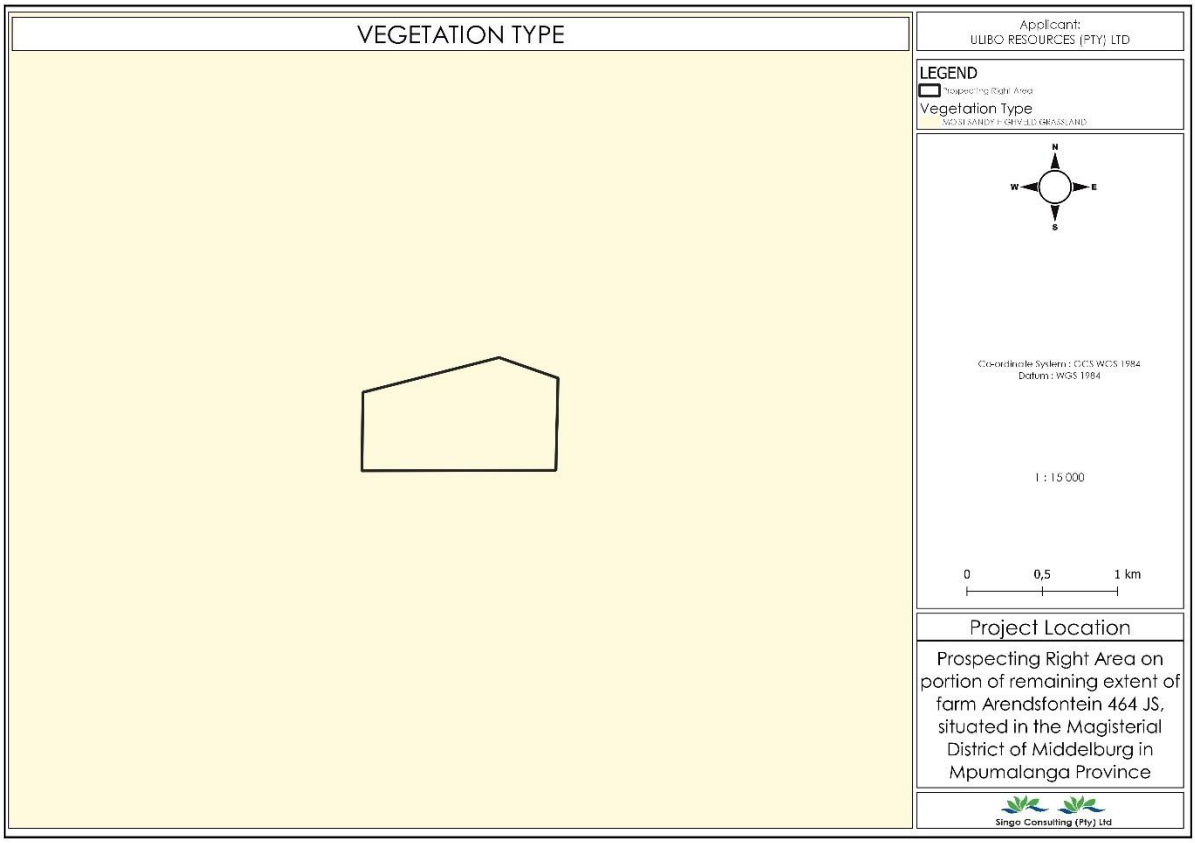

MEAN ANNUAL RAINFALL
Applicant:
ULIBO RESOURCES (PTY) LTD
LEGEND
Mean Annual Rainfall
N
W
E
S
Co-ordinate System : CCS WGS 1984
Datum : WGS 1984
1 : 15 000
0
0,5
1 km
Project Location
Prospecting Right Area on portion of remaining extent of farm Arendsfontein 464 JS, situated in the Magisterial District of Middelburg in Mpumalanga Province
Singo Consulting (Pty) Ltd


SOIL CLASSES
Applicant:
ULIBO RESOURCES (PTY) LTD
LEGEND
Prospecting Right Area
Soil Classes
Association of Classes 1 to 4:
Undifferentiated structureless soils
Freely drained, structureless soils
Red or yellow structureless soils with a plinthic horizon
N
W
E
S
Co-ordinate System : CCS WGS 1984
Datum : WGS 1984
1 : 15 000
0
0,5
1 km
Project Location
Prospecting Right Area on portion of remaining extent of farm Arendsfontein 464 JS, situated in the Magisterial District of Middelburg in Mpumalanga Province
Singo Consulting (Pty) Ltd


MEAN MINIMUM ANNUAL TEMPERATURE
Applicant:
ULIBO RESOURCES (PTY) LTD
LEGEND
Prospecting Right Area
Mean Minimum Annual Temperature
1,9 - 0 Degree Celcius
0,1 - 2 Degree Celcius
N
W
E
S
Co-ordinate System : CCS WGS 1984
Datum : WGS 1984
1 : 15 000
0
0,5
1 km
Project Location
Prospecting Right Area on portion of remaining extent of farm Arendsfontein 464 JS, situated in the Magisterial District of Middelburg in Mpumalanga Province
Singo Consulting (Pty) Ltd


TERRESTRIAL BIODIVERSITY
Applicant:
ULIBO RESOURCES (PTY) LTD
LEGEND
Prospecting Right Area
MBSP Terrestrial 2019
CBA Optimal
Heavily modified
Moderately modified- Old lands
Other Natural Areas
N
W
E
S
Co-ordinate System : GCS WGS 1984
Datum : WGS 1984
1 : 15 000
0
0,5
1 km
Project Location
Prospecting Right Area on portion of remaining extent of farm Arendsfontein 464 JS, situated in the Magisterial District of Middelburg in Mpumalanga Province
Singo Consulting (Pty) Ltd


TOPOLOGY
Applicant:
ULIBO RESOURCES (PTY) LTD
LEGEND
Prospecting Right Area
Contours (5m Interval)
N
W
E
S
Co-ordinate System : GCS WGS 1984
Datum : WGS 1984
1 : 15 000
0
0,5
1 km
Project Location
Prospecting Right Area on portion of remaining extent of farm Arendsfontein 464 JS, situated in the Magisterial District of Middelburg in Mpumalanga Province
Singo Consulting (Pty) Ltd


VEGETATION TYPE
Applicant:
ULIBO RESOURCES (PTY) LTD
LEGEND
Prospecting Right Area
Vegetation Type
N
W
E
S
Co-ordinate System : CCS WGS 1984
Datum : WGS 1984
1 : 15 000
0
0,5
1 km
Project Location
Prospecting Right Area on portion of remaining extent of farm Arendsfontein 464 JS, situated in the Magisterial District of Middelburg in Mpumalanga Province
Singo Consulting (Pty) Ltd

Appendix 3: Background Information Document

BACKGROUND INFORMATION DOCUMENT

APPLICANT:

ULIBO RESOURCES (Pty) Ltd

Address: 32 Anna Scheeper Del Judor Del Judor Ext, Witbank Mpumalanga

Contact Person: Mr. Musa Malikane

Cell: +27 72 2267 673

Email: malikanerm@gmail.com

CONSULTANT:

Singo Consulting (Pty) Ltd

Address: Office 870 05 Balalaika St, Tasbet Part Ext 2, Witbank, 1035

Contact person: Thilivhali Ndou

Cell: +27 63 0506 313

Email: thilivhali@singoconsulting.co.za

INTRODUCTION AND THE PURPOSE OF THIS DOCUMENT

Singo Consulting (Pty) Ltd has been appointed as an independent Environmental Consultant by **Ulibo Resources (Pty) Ltd** for the purpose of Prospecting for **Coal** on **portion of Portion of the Remaining Extent** of the Farm **Arendsfontein 464 JS**, situated in the Magisterial District of Middleburg, Mpumalanga Province.

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, 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 is located approximately 31,85km North of Hendrina, 14,64km South of Middleburg and 13,82km North of Optimum coal mine. It can be accessed via the N11 and farm access (gravelly) roads.

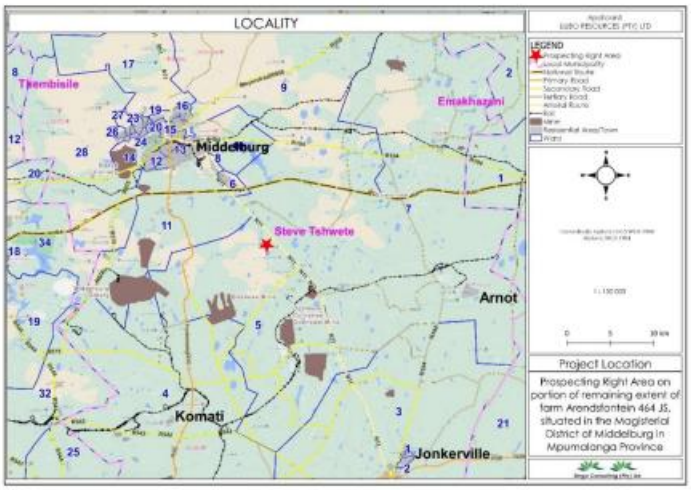


Figure 1: Locality map of the area.

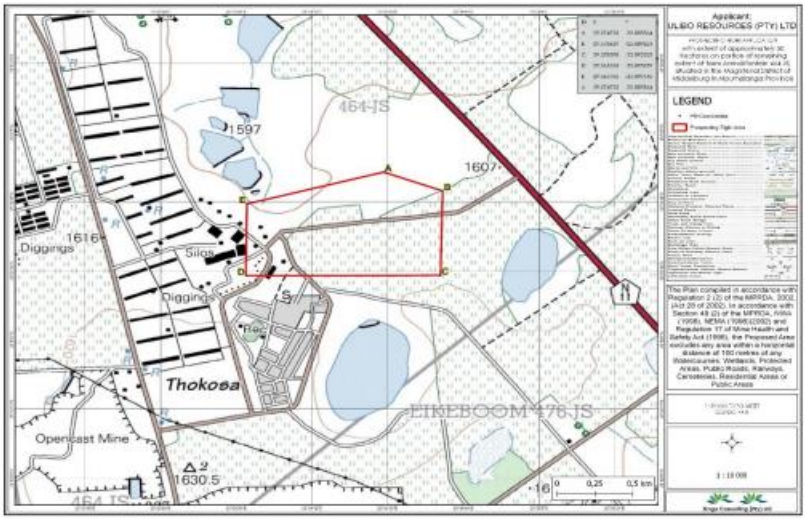


Figure 2: Reg 2.2 map **(coordinate 1: -25.887864, 29.574735)**

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 Prospecting Right 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 Thilivhali Ndou** 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): **Wednesday the 19th of April 2023 to Monday 22nd of May 2023.**
- The Draft BAR & EMPr will be available at the **Gerard Sekoto Library (Cnr Walter Sisulu Str & Wanderers Avenue, Middelburg, 1055)** and a soft copy upon request from Singo Consulting (Pty) Ltd using the detailed **Public Participation Officer** contact's below or directly from our office.

Singo Consulting (Pty) Ltd

Address: Balalaika Street,
Tasbet Park Ext 2,
eMalahleni,
1040
Cell: +27 63 0506 313
Email: thilivhali@singoconsulting.co.za

REGISTRATION & COMMENT SHEET-(DMRE REF: MP 30/5/1/1/2/17258 PR)

Attention: **Thilivhali Ndou** Email: thilivhali@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:Newspaper and site notice.

MY BEURT MY TURN

Tollie van den Bergh

Robert Brozin is op Middelburg gebore.

Hy het hier grootgeword, geleer gholf speel en seunsgoed gedoen.

Sy ouers, Max en Vera Sheila (Collis), was bekende sakemense.

Die jong Robert is later saam met hulle Johannesburg toe.

Hy was die een wat gehou het van pret, "fun", soos hy sê.

Van "kakmaak".

Toe besluit hy om die wêreld te verander, hoender vir hoender.

Hy kan tereg beskou word as die "vader" van Nando's, daai hoender met die lekker brand.

Robert is net 'n doodgewone mense-mens, met 'n briljante sakebrein.

Toe hy Donderdagaand opstap om sy toespraak af te steek, by die Middelburg Kamer van Koophandel se jaarlikse banket, het niemand gesê "maak vas julle sitplekgordels nie".

Want dit was nie nodig nie.

Robbie het die vol saal by 4SAI vasgenael aan hulle sitplekke gehou.

Sommer so uit die vuis het hy die gaste op 'n reis gevat, 'n lewensreis van menswees, sake, geld en gees.

Hy moes 'n paar keer sluk toe hy praat oor sy oupa en pa se "gees", hulle nalatenskap wat hy weer in Middelburg beleef.

Sy liefde vir Middelburg.

Sy geloof in Middelburg.

Sy vertroue in die dorp se toekoms.

Hoe hy steeds daardie Middelburg gees in 4SAI se saal beleef.

Die gaste was nie ou verstokte omies nie, hulle was entoesiastiese en kreatiewe jong mense.

Wat bereid is om die Nando's waardes van trots, passie, durf, integriteit en familie voort te sit.

Wat gees het.

Wat die dorp gaan verander.

Nie hoender vir hoender nie.

Deur hulle Middelburg gees.

Observer 1903 - 2023

Middelburg Observer August 23, 1907

Imperial Hotel

This splendidly conducted hotel is the most centrally situated, being near the Post, Telegraph, Government Offices, Market, Town Hall, and Banks, and specially adapted for businessmen.

Large balcony overlooking the beautiful Government and Market Squares.

Thoroughly renovated and refurnished. A long-standing reputation as the premier hotel of Middelburg.

The hotel bus meets all passenger trains.

Hot and cold baths.

Private and public bars.

High-class hairdressing saloon.

Resident of the week:

Que Naidoo, the outgoing president of the Middelburg Chamber of Commerce and Industry, for the passionate manner in which she has served and fought for Middelburg and its community during the last two years. Ms Naidoo has set many plans in place to endorse the town's economy and Middelburg stands to greatly benefit from her initiatives for many years to come. Ms Naidoo, you are welcome to come and collect your Hobo's Cafe voucher to the value of R250 from the *Middelburg Observer*'s editorial office.

Thorn of the week:

Thorn of the week: The ongoing Nehawu strike, which has prevented many patients from receiving or seeking urgent and life-saving treatment in their pursuit of more money. So many incidents have been aired of patients being abandoned in their wards and in one instance, a baby lost its life due to the intimidation from healthcare workers who do want to work by those who do not. The fact that these incidents did not happen on local soil makes no difference. The power that comes from the freedom to strike or protest was always intended to empower and free people. The abuse of that power, in current times, however, has reached a point where it has robbed ordinary citizens of their most basic rights. It is ok to want the sun to shine over you, but why deny others the same?

Jehovah se Getuies byeen

Die publiek word uitgenooi om die kringbyeenkoms van Jehovah se Getuies by te woon wat Saterdag aangebied word by die Pienaardam Ontspanningsoord se Hartlandsaal.

Die program begin om 09:00 tot 16:00 met 'n etensuur tussen 12:00 en 13:00. Ligte verversings sal beskikbaar wees teen bekostigbare pryse.

Toegang is gratis en geen kollektes sal geneem word nie.

Die kringbyeenkoms se tema is "Jehovah se verenigde familie".

Please municipality, sort the homeless

Former town councillor and community leader Farouk Suliman:

Bravo to the City of Cape Town for taking a bold step to approach the High Court of the Western Cape for the removal of the homeless people from the streets.

The court has ruled in favour of the council.

Steve Tshwete Local Municipality, you can also act swiftly, within the law, to empower our law enforcement agencies to act accordingly.

The council should designate a safe and suitable, well-fenced area for the homeless, with adequate amenities, like water and sanitation.

There's no need for local authorities to go to court if provisions are made available to alleviate this dire and unhealthy situation.

To accommodate the homeless will assist the business owners in the CBD tremendously.

If the council acts responsibly to stop this scourge of begging and loitering, the town may once again become a flagship for South African local authorities, like Cape Town.

Mr Farouk Suliman.

Please, we urge you to bring Middelburg back to its former glory.

Save these dates

As jy jou geselligheid of sportgeleentheid wil adverteer, bel Daleen Naude by 013 243 1434 of stuur 'n e-pos na **daleen@mobserver.co.za**.

Elke Vrydag

•Die Hospicevereniging bak pannekoek by hul kantoor in Kogelstraat. R7 per pannekoek. Elke tweede Vrydag ook pannekoek met melktertvulsel (R15). Bestellings by sr. Judy Toua by 083 231 5831 of bel die kantoor by 013 243 6713.

Elke Saterdag

•Mannaprojek Blikskud by Farm Inn. Bev Neyt 082 338 5129.

18 Maart

•Gholfdag by Arnot Gholfklub. Paul Swart 082 3355 332.

22 Maart

•Pret nagwedloop van 4.9km ten bate van die Middelburg Hospicevereniging. Wegspring vanaf Laerskool Staatspresident C.R. Swart. Navrae by 013 243 5713.

1 April

•Oppi Stasie Vlooimark by Middelburg Stasie. Stalletjies Liezl 084 990 5944.

PADKOS QUIET TIME

When last did you stop to smell the roses? One of my friends, who passed away during Covid-19, frequently asked me this question. We live in a hectic world. The pace of life for most of us is very fast. Today I want to urge you: Keep the main thing, the main thing!

Spend time with your loved ones. Treasure the moments with the people you love. Focus on making memories and live life to the full. When last did you honour the people that influence your life? We tend to bring flowers to a funeral and say beautiful words on that day but do the people that you love and honour know how you feel about them?

May we start a culture of honour. May we take time to stop and smell the roses. Let the people you love know how you feel about them. Treasure them and honour them. Our greatest treasure in this world is God and the people we love.

Journey with Jesus.

NOTICE OF PUBLIC PARTICIPATION FOR PROSPECTING RIGHT APPLICATION AND ENVIRONMENTAL AUTHORISATION APPLICATION

ISIZULU

Isaziso Sohlelo Lokufaka Isicelo Selungelo Lokuhlonza njengokusho koMthetho Wokuthuthukiswa Kwezimbiwa kanye Nophethiloli (MPRDA) (uMthetho wama-28 ka-2002) sokufunwa **kwamalahle ngeNgxenye Yengxenye Yengxenye Esele Yepulazi i-Arendsfontein 464 JS**, eSifundazweni sikaMantshi. eMiddelburg, esifundazweni saseMpumalanga.

ISIMEMO SOKUBHALISA & PHAWULA

Isaziso sinikezwa ngokoMthetho Wokuthuthukiswa KwezMbiwa kanye Nezithombo Zophethiloli (MPRDA) (uMthetho wama-28 ka-2002) kanye nemithethonqubo ye-EIA ka-2014, eshicilelwe ngaphansi kweSaziso sikaHulumeni esinguNombolo 982 Gazethi No. 38282 mhla ziyi-7 kuMbasa 2017 futhi ngo-GN 517 mhla ziyi-11 kuNhlangulana 2021 ukuthi i-**Ulibo Resources (Pty) Ltd** ifake isicelo selungelo Lokuhlola lemineraIi eshiwo ngenhla nge-**DMRE Ref: MP 30/5/1/1/2/17258 PR.**

Njengengxenye yenqubo ye-EIA, ikakhulukazi inqubo yokubambisana komphakathi kule phrojekthi ehlongozwayo, Abanentshisekelo Nabathintekayo (I&APs) bayamenywa ukuba bathalise futhi bathumele ngomuzi noma yikuphi ukuphawula noma ukukhathazeka ukuze kufinyelele **uNksz. Thilivhali Ndou**, kusetshenziswa imininingwane yokuxhumana enikezwe ngezansi. Umphakathi uyamenywa ukuba ubuyekeze futhi uphawule ngoMbiko Owuhlaka Wokuhlola Okuyisisekelo (DBAR) kanye noMbiko Wohlelo Lokuphathwa Kwemvelo (EMPr). I-DBAR ne-EMPr izotholakala ukuthi ibuyekezwe isikhathi sekhalenda sezinsuku ezingu-30 kusukela **ngoLwesithathu zingama-19 ku-April 2023– zingama-22 kuMeyi 2023 (ngaphandle kwamaholide omphakathi)**. Lo mbiko uzotholakala **eGerard Sekoto Library (Cnr Walter Sisulu Str & Wanderers Avenue, Middelburg, 1055)**. Ngaphezu kwalokho, amakhophi e-elekthroniki azotholakala (nge-imeyili; isixhumanisi se-Dropbox; i-Google drayivu; Sidlulisa, njll.) uma ecelwa kwa-Singo Consulting (Pty) Ltd, kusetshenziswa imininingwane yokuxhumana ka-Environmental Assessment Practitioner (EAP) uDkt Kenneth Singo kanye Uchwepheshe Wezemvelo (Envir. Tech. intern) UNksz Thilivhali Ndou. **Amazwana nge-DBAR & EMPr kufanele athunyelwe ngaphambi komhla zingama-22 kuMeyi 2023.**

ENGLISH

Notice of the Prospecting Right Application Process as per the Mineral and Petroleum Resources Development Act (MPRDA) (Act 28 of 2002) for the prospecting of **Coal** on **portion of Portion of the Remaining Extent** of the Farm **Arendsfontein 464JS**, situated in the Magisterial District of Middelburg, Mpumalanga Province.

INVITATION TO REGISTER & 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. 38282 of 4 December 2014, as amended on 7 April 2017 and by GN 517 on 11 June 2021, that **Ulibo Resources (Pty) Ltd** has applied for a Prospecting Right for the above-mentioned mineral with **DMRE Ref: MP 30/5/1/1/2/ 17258 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 Thilivhali Ndou**, using the contact details provided below. The public is also invited to review and comment on the Draft Basic Assessment Report (DBAR) and Environmental Management Programme Report (EMPr). The DBAR & EMPr will be available for review for 30 days calendar period from **Wednesday, the 19th of April 2023 – Monday, the 22nd of May 2023 (excluding public holiday).** This report will be available at the **Gerard Sekoto Library (Cnr Walter Sisulu Str & Wanderers Avenue, Middelburg, 1055).** Furthermore, electronic copies will be made available (via email; Dropbox link; Google Drive; WeTransfer, etc.) upon request from Singo Consulting (Pty) Ltd, using the contact details of the Environmental Assessment Practitioner (EAP) Dr Kenneth Singo and Environmental Technician (Envir. Tech. intern) Ms Thilivhali Ndou. **Comments on the DBAR & EMPr must be submitted no later than the 22nd of May 2023.**

EAP AND ENVIR. TECH. CONTACT DETAILS

Singo Consulting (Pty) Ltd

Office 870, 5 Balalaika Street,
Tasbet Park ext. 2, eMalahleni (Witbank), 1040
EAP.: Dr Kenneth Singo
Email: kenneth@singoconsulting.co.za/admin@singoconsulting.co.za
Tel no.: +27 13 6920 041
Fax no.: +27 86 5144 103
Envir.tech.: Miss Thilivhali Ndou
Cell no.: +27 630 506 313
Email: thilivhali@singoconsulting.co.za

APPLICANT'S DETAILS

ULIBO RESOURCES (Pty) Ltd

Physical Address: 32 Anna Scheepers Street, Del Judor Ext, Witbank, Mpumalanga
Contact Person: Mr Musa Malikane
Tel No.: +27 722 267 673
Email: malikanem@gmail.com

NOTICE OF A BASIC ASSESSMENT PROCESS AND AMENDMENT OF THE ATMOSPHERIC EMISSION LICENCE FOR THE PROPOSED UPGRADING OF THE M3 AND M4 FURNACES, PSP AND ASSOCIATED ABATEMENT INFRASTRUCTURE AND INSTALLATION OF PRE-HEATERS AT SAMANCOR MIDDELBURG FERROCHROME, MIDDELBURG, MPUMALANGA PROVINCE.

Notice issued in terms of the National Environmental Management Act 107 of 1998 (NEMA),
the Environmental Impact Assessment Regulations, 2014 (as amended), and
the National Environmental Management: Air Quality Act 39 of 2004 (NEM:AQA)

Samancor Chrome produces charge chrome at its Middelburg Ferrochrome (MFC) site on Hendrina Road in Middelburg, Mpumalanga. MFC is proposing to upgrade the existing M3 and M4 furnaces and PSP to increase the current production rate. In addition, pre-heaters will be installed for the M3 and M4 furnaces and the gas abatement equipment for the M3 furnace and PSP will be upgraded.

This notice serves to notify landowners and/or interested and Affected Parties (I&APs) that, in terms of the Environmental Impact Assessment (EIA) Regulations (2014, as amended) GN R.983 Listing Notice 1 Activity 34 pertaining to the expansion of existing facilities or infrastructure for any process or activity where such expansion will result in the need for a permit or licence or an amended permit or licence in terms of national or provincial legislation governing the release of emissions, MFC must submit an application for Environmental Authorisation (EA) to the Mpumalanga Department of Agriculture, Rural Development, Land & Environmental Affairs (MDARDLEA), supported by a Basic Assessment process. A draft Basic Assessment Report (BAR) is now available for public review and comment.

In addition, MFC is also required to submit an Atmospheric Emission License (AEL) amendment application to the AEL licensing authority for the above-mentioned changes. MFC was issued with an AEL on 18 October 2017 for a number of listed activities, as per GNR. 893 of 22 November 2013. Activities for the existing MFC operations are classified, as a listed activity in terms of Category 4: Metallurgical Industry, Subcategory 4.1 Drying and Calcining (i.e. for facilities with capacity of more than 100 tons/month product), Subcategory 4.5 Sinter Plant (i.e. for all installations) and Subcategory 4.9 Ferro-alloy Production (i.e for all installations). With the proposed changes, Category 5: Mineral Processing, Storage and Handling, Subcategory 5.1 Storage and Handling of Ore and Coal (i.e for facilities designed to hold more than 100000 tons) will also be triggered.

WSP Group Africa (Pty) Ltd (WSP), an independent environmental assessment practitioner (EAP), is appointed by MFC to conduct the required EAs for the proposed project.

I&APs are invited to register as stakeholders and comment on the draft BAR, Air Quality Impact Report and AEL Amendment, which is available for review and comment from **Wednesday, 22 March 2023 to Monday, 24 April 2023**. The draft reports & Background Information Document can be downloaded from: WSP website - https://www.wsp.com/en-za/services/public-documents or data free website - https://wsp-engage.com/. Printed copies of the documents are available at the following public places:

- Gerard Sekoto Library, Cnr Sisulu and Wanderers Street, Middelburg
- Nazareth Library, 16 Fort Napier Street, Nazareth, Middelburg
- Samancor Middelburg Ferrochrome Security Entrance, Hendrina Road, Middelburg

FOR MORE INFORMATION, PLEASE CONTACT:
Public Participation Office, WSP Group Africa (Pty) Ltd
Tel: (011) 254 4800, Fax: 086 582 1561, Email: gld.pp@wsp.com, Reference: 41105442

WSP will be processing certain personal information about you as an I&AP for purposes of enabling your registration as an I&AP and for purposes of storing your details on our database, if you consent for us to do so. WSP uses these details to contact you about other projects in the future. WSP will always process your personal information in accordance with the Protection of Personal Information Act 4 of 2013. You are entitled to exercise your rights as a data subject and let us know if you wish to be deregistered as an I&AP or if you no longer want your contact details to be included on our database.

ISAZISO SOKUBAMBA IQHAZA KOMPHAKATHI EKUBHEKELWENI ISICELO SOKUGUNYAZWA KWELUNGELO NEZEMVELO

Isaziso se-Prospecting Right Application Process njengokoMthetho Wokuthuthukiswa Kwemithombo Yamaminerali Ne-Petroleum (uMthetho 28 ka-2002) wephrojekthi ehlongozwayo yokubheka amalahle **engxenyeni yengxenye yobukhulu obusele** bepulazi **i-Arendsfontein 464 JS**, eseMagisterial District yaseMiddleburg, esiFundazweni saseMpumalanga **ne-DMRE Ref:MP30/5/1/1/2/17258 PR.**

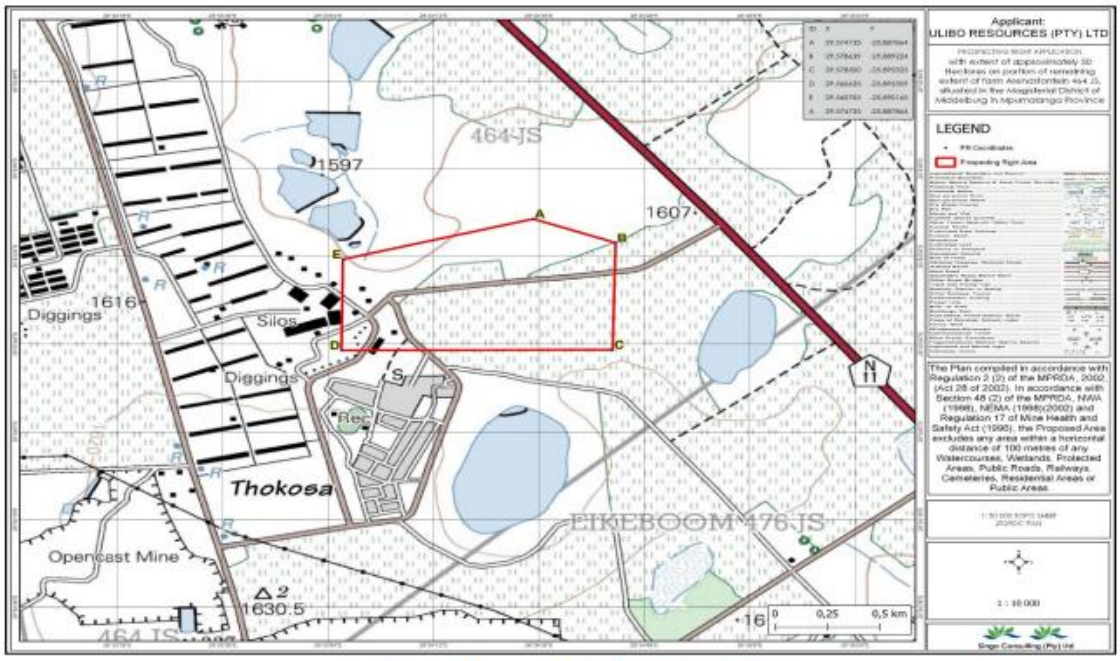


Figure 1: Proposed prospecting right area (A:-25.887864;29.574735)

ISIMEMO SOKUBHALISA FUTHI UPHAWULE

Isaziso siniikezwa ngokoMthetho Wokuthuthukiswa KweziMbiwa kanye Nezamafutha (MPRDA) (uMthetho wama-28 wezi-2002) kanye nemithethonqubo ye-EIA ka-2014, eshicilelwe ngaphansi kweSaziso Sikahulumeni No.982 kuGazethi No. **i-Ulibo Resources (Pty) Ltd** isifake isicelo ngenhloso yokufuna amalahle.

Njengengxenye yenqubo ye-EIA, ikakhulukazi i-Public Participation Process (PPP) yale phrojekthi ehlongozwayo yokuhlonza iphrojekthi, Abanentshisekelo Nabathintekayo (I&APs) bayamenywa ukuba babhalise futhi bathumele ngomusa noma yikuphi ukuphawula noma ukukhathazeka ukuze kufinyelelwe **ku-Miss Thilivhali Ndou** kusetshenziswa imininingwane yokuxhumana enikeziwe ngezansi. Umphakathi uyamenywa futhi ukuthi ubuyekeze futhi uphawule ngoMbiko Owuhlaka Wokuhlola Okuyisisekelo (DBAR) kanye nombiko woHlelo Lokuphathwa Kwemvelo (EMPr). I-DBAR ne-EMPr izotholakala ukuthi ibuyekezwe isikhathi sekhalenda sezinsuku ezingama-30 kusukela **ngoLwesithathu zivi-19 kuMbasa 2023 kuya ngoMsombuluko zivi-22 kuNhlaba 2023**. Lo mbiko uzotholakala **kwi-Gerard Sekoto Library (Wanderers Laan, Middelburg, 1055).** Ngaphezu kwalokho, amakhophi e-elekthronikhi azotholakala (nge-imeyili; isixhumanisi se-Dropbox; i-Google drayivu; Sidlulisa, njll.) uma ecelwa kwa-Singo Consulting (Pty) Ltd, kusetshenziswa imininingwane yokuxhumana ka-Environmental Assessment Practitioner (EAP) uDkt Kenneth Singo kanye Uchwepheshe Wezemvelo (**Public Participation Officer**) Miss Thilivhali Ndou. Amazwana nge-DBAR & EMPr kufanele athunyelwe ngaphambi **zingama-22 kuNhlaba wezi-2023.**

EAP, ENVIR. TECH & APPLICANT DETAILS

Singo Consulting (Pty) Ltd

Office 870, 5 Balalaika Street,
Tasbet Park Ext. 2, eMalahleni (Witbank), 1040
EAP.: Dr Kenneth Singo
Email: kenneth@singoconsulting.co.za/
admin@singoconsulting.co.za
Tel No.: +27 13 6920 041
Fax No.: +27 86 5144 103
Envir.Tech.: Miss Thilivhali Ndou
Email: thilivhali@singoconsulting.co.za
Cell No.: +27 63 050 6313

ULIBO RESOURCES (PTY) LTD

32 Anna Scheeper Del Judor Del Judor Ext, Witbank
Mpumalanga
Contact Person: Mr Musa Malikane
Tel No.: +27 72 2267 673
Email: malikanerm@gmail.com

NOTICE OF PUBLIC PARTICIPATION FOR PROSPECTING RIGHT AND ENVIRONMENTAL AUTHORIZATION APPLICATIONS

Notice of Prospecting Right Application Process as per the Mineral and Petroleum Resources Development Act (Act 28 of 2002) for the proposed prospecting project of **Coal** on **portion of Portion of the Remaining Extent** of the farm **Arendsfontein 464 JS**, situated in the Magisterial District of **Middleburg**, in Mpumalanga Province with **DMRE Ref:MP30/5/1/1/2/17258 PR.**

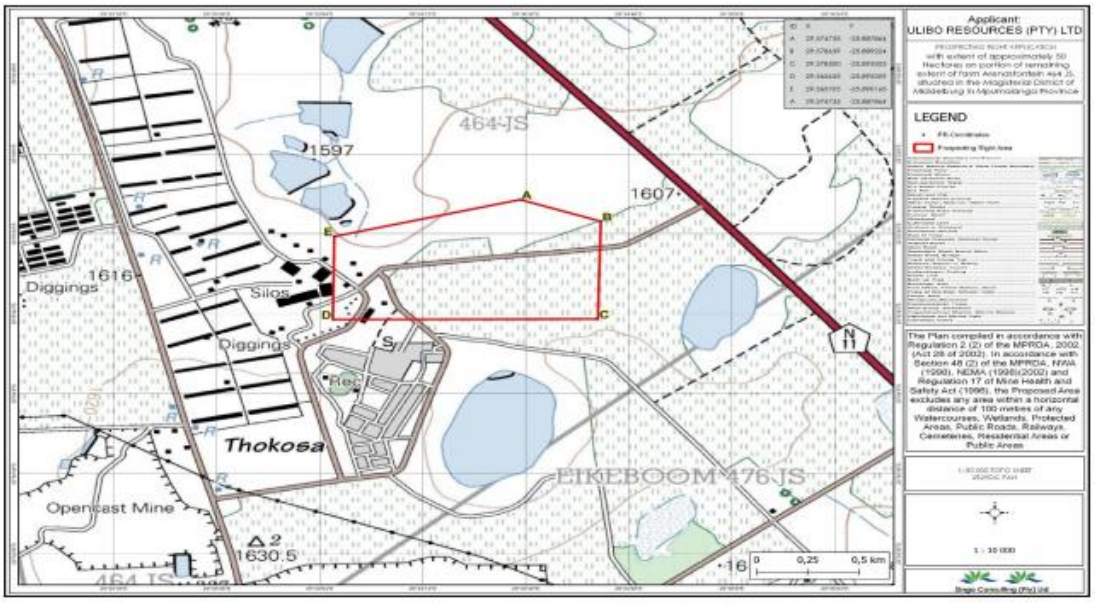


Figure 1: Proposed prospecting right area. (A: -25.887864; 29.574735)

INVITATION TO REGISTER & COMMENT

Notice is 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 and by GN 517 on 11 June 2021, that **Ulibo Ressources (Pty) Ltd** has applied for the purpose of extracting coal.

As part of the EIA process, more especially the Public Participation Process (PPP) for this proposed prospecting project, interested and Affected Parties (I&APs) are invited to register and kindly submit any comments or concerns to reach **Miss Thilivhali Ndou** using the contact details provided below. The public is also invited to review and comment on the Draft Basic Assessment Report (DBAR) and Environmental Management Programme report (EMPr). The DBAR & EMPr will be available for review for 30 days' calendar period from **Wednesday, the 19th of April 2023 to Monday, 22nd of May 2023 (excluding public holiday).** This report will be available at the **Gerard Sekoto Library (Wanderers Laan, Middelburg, 1055).** Furthermore, electronic copies will be made available (via email; Dropbox link; Google drive; We Transfer, etc.) upon request from Singo Consulting (Pty) Ltd, using the contact details of the Environmental Assessment Practitioner (EAP) Dr Kenneth Singo and **Public Participation Officer,** Miss Thilivhali Ndou. **Comments on the DBAR & EMPr must be submitted no later than Monday, the 22nd of May 2023.**

EAP, ENVIR. TECH & APPLICANT DETAILS

Singo Consulting (Pty) Ltd

Office 870, 5 Balalaika Street,
Tasbet Park Ext. 2, eMalahleni (Witbank), 1040
EAP.: Dr Kenneth Singo
Email: kenneth@singoconsulting.co.za/
admin@singoconsulting.co.za
Tel No.: +27 13 6920 041 Fax No.: +27 86 5144 103
Envir.Tech./Intern.: Miss Thilivhali Ndou
Email: thilivhali@singoconsulting.co.za
Cell No.: +27 63 0606 313

ULIBO RESOURCES (Pty) Ltd

Physical Address: 32 Anna Scheeper Del Judor Del Judor Ext,
Witbank, Mpumalanga
Contact Person: Mr Musa Malikane
Tel No.: +27 72 2267 673
Email: malikanem@gmail.com

Appendix 5: Stakeholder's engagement.

Good day,

Receive warm greetings from Singo Consulting (Pty) Ltd.

Singo Consulting (Pty) Ltd on behalf of **Ulibo Resources (Pty) Ltd** hereby wishes to inform you that it has applied for a Prospecting Rights together with Environmental Authorization to the Mpumalanga Department of Mineral Resources & Energy (DMRE) in order to extract **coal** resource on **portion of Portions of the remaining extent of the farm Arendsfontein 464 JS, situated under the Magisterial District of Middleburg, Mpumalanga Province, with DMRE Ref.: MP 30/5/1/1/2/17258 PR).**

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) where one of the requirements is that all stakeholders must be notified of **Ulibo Resources (Pty) Ltd's** intentions to obtain a Prospecting Rights for the above-mentioned commodity. This invitation is extended to you as the department you serve may somehow be enforcing 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:

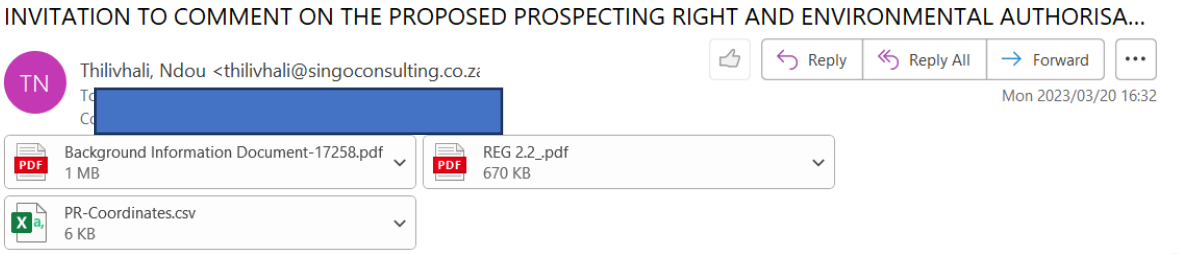
- Register as an Interested and Affected Party (I&AP) and to respond to the environmental compliance process.
- Raise issues of concern and provide suggestions for enhanced benefits.
- Contribute to local knowledge.
- Comment on the Draft Basic Assessment Report (DBAR) & Environmental Management Plan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

Singo Consulting (Pty)Ltd has been appointed as an independent Environmental Assessment Practitioner (EAP) to manage the environmental authorisation process by conducting an Environmental Impact Assessment, Public Participation Process (PPP) for the proposed project and compile a Basic Assessment Report & Environmental Management Programme Report (BAR & EMPr). A Basic Assessment 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, questions that you have about the proposed project. Should you need any clarity on the attached documents 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 (for a brief description of the proposed project and timelines), Regulation map 2.2 and co-ordinates

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

Singo Consulting (Pty) Ltd
Public Participation Officer
BSc : Environmental Science
BSc(Hons): Environmental Science
Office No. 870, 5 Balalaika Street
Tasbet Park Ext 2
eMalahleni
1040
Tel.: +27 13 692 0041
Cell: +27 63 050 6313
Fax: +27 86 5144 103
Email: thilivhali@singoconsulting.co.za



Good day,

Receive warm greetings from Singo Consulting (Pty) Ltd.

Singo Consulting (Pty) Ltd on behalf of **Ulibo Resources (Pty) Ltd** hereby wishes to inform you that it has applied for a Prospecting Rights together with Environmental Authorization to the Mpumalanga Department of Mineral Resources & Energy (DMRE) in order to extract **coal** resource on **portion of Portions of the remaining extent of the farm Arendsfontein 464 JS, situated under the Magisterial District of Middleburg, Mpumalanga Province, with DMRE Ref.: MP 30/5/1/1/2/17258 PR).**

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) where one of the requirements is that all stakeholders must be notified of **Ulibo Resources (Pty) Ltd's** intentions to obtain a Prospecting Rights for the above-mentioned commodity. This invitation is extended to you as the department you serve may somehow be enforcing 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:

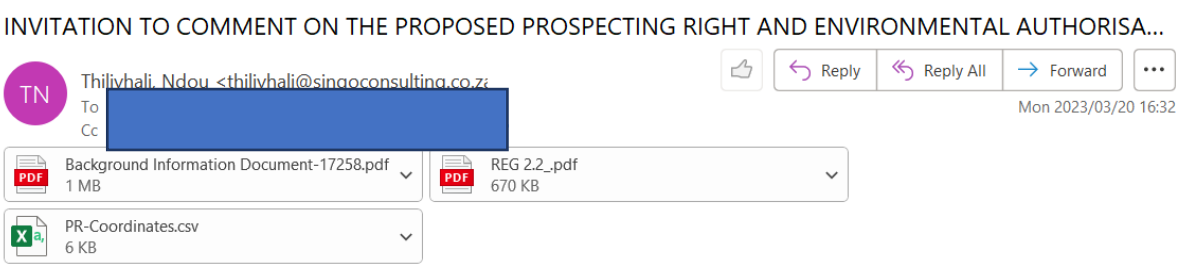
- Register as an Interested and Affected Party (I&AP) and to respond to the environmental compliance process.
- Raise issues of concern and provide suggestions for enhanced benefits.
- Contribute to local knowledge.
- Comment on the Draft Basic Assessment Report (DBAR) & Environmental Management Plan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

Singo Consulting (Pty)Ltd has been appointed as an independent Environmental Assessment Practitioner (EAP) to manage the environmental authorisation process by conducting an Environmental Impact Assessment, Public Participation Process (PPP) for the proposed project and compile a Basic Assessment Report & Environmental Management Programme Report (BAR & EMPr). A Basic Assessment 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, questions that you have about the proposed project. Should you need any clarity on the attached documents 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 (for a brief description of the proposed project and timelines), Regulation map 2.2 and co-ordinates

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

Singo Consulting (Pty) Ltd
Public Participation Officer
BSc : Environmental Science
BSc(Hons): Environmental Science
Office No. 870, 5 Balalaika Street
Tasbet Park Ext 2
eMalahleni
1040
Tel.: +27 13 692 0041
Cell: +27 63 050 6313
Fax: +27 86 5144 103
Email: thilivhali@singoconsulting.co.za



Good day,

Receive warm greetings from Singo Consulting (Pty) Ltd.

Singo Consulting (Pty) Ltd on behalf of **Ulibo Resources (Pty) Ltd** hereby wishes to inform you that it has applied for a Prospecting Rights together with Environmental Authorization to the Mpumalanga Department of Mineral Resources & Energy (DMRE) in order to extract **coal** resource on **portion of Portions of the remaining extent of the farm Arendsfontein 464 JS, situated under the Magisterial District of Middleburg, Mpumalanga Province, with DMRE Ref.: MP 30/5/1/1/2/17258 PR).**

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) where one of the requirements is that all stakeholders must be notified of **Ulibo Resources (Pty) Ltd's** intentions to obtain a Prospecting Rights for the above-mentioned commodity. This invitation is extended to you as the department you serve may somehow be enforcing 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:

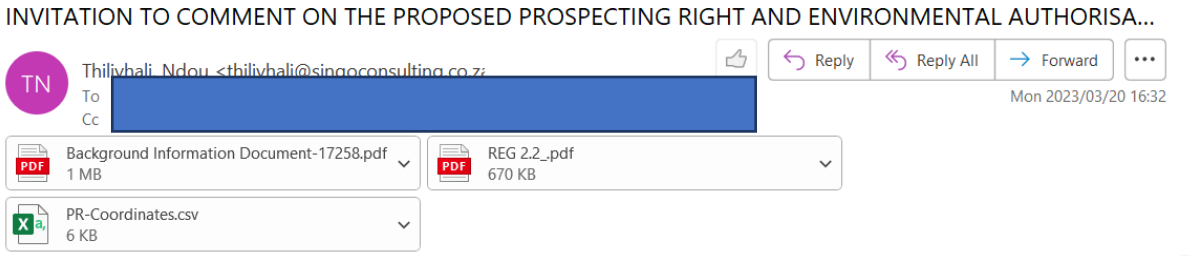
- Register as an Interested and Affected Party (I&AP) and to respond to the environmental compliance process.
- Raise issues of concern and provide suggestions for enhanced benefits.
- Contribute to local knowledge.
- Comment on the Draft Basic Assessment Report (DBAR) & Environmental Management Plan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

Singo Consulting (Pty)Ltd has been appointed as an independent Environmental Assessment Practitioner (EAP) to manage the environmental authorisation process by conducting an Environmental Impact Assessment, Public Participation Process (PPP) for the proposed project and compile a Basic Assessment Report & Environmental Management Programme Report (BAR & EMPr). A Basic Assessment 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, questions that you have about the proposed project. Should you need any clarity on the attached documents 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 (for a brief description of the proposed project and timelines), Regulation map 2.2 and co-ordinates

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

Names: Thilivhali Ndou
Public Participation Officer
BSc : Environmental Science
BSc(Hons): Environmental Science
Office No. 870, 5 Balalaika Street
Tasbet Park Ext 2
eMalahleni
1040
Tel.: +27 13 692 0041
Cell: +27 63 050 6313
Fax: +27 86 5144 103
Email: thilivhali@singoconsulting.co.za



Good day,

Receive warm greetings from Singo Consulting (Pty) Ltd.

Singo Consulting (Pty) Ltd on behalf of **Ulibo Resources (Pty) Ltd** hereby wishes to inform you that it has applied for a Prospecting Rights together with Environmental Authorization to the Mpumalanga Department of Mineral Resources & Energy (DMRE) in order to extract **coal** resource on **portion of Portions of the remaining extent of the farm Arendsfontein 464 JS, situated under the Magisterial District of Middleburg, Mpumalanga Province, with DMRE Ref.: MP 30/5/1/1/2/17258 PR).**

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) where one of the requirements is that all stakeholders must be notified of **Ulibo Resources (Pty) Ltd's** intentions to obtain a Prospecting Rights for the above-mentioned commodity. This invitation is extended to you as the department you serve may somehow be enforcing 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.

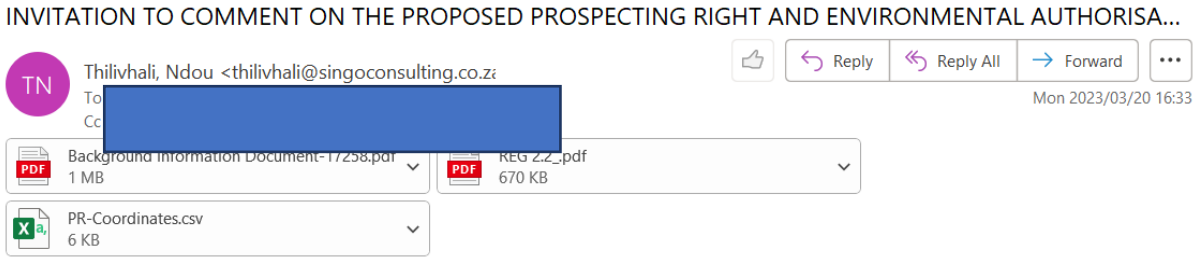
☞🗀☞👍 Comment on the Draft Basic Assessment Report (DBAR) & Environmental Management Plan Report (EMPr)

Singo Consulting (Pty)Ltd has been appointed as an independent Environmental Assessment Practitioner (EAP) to manage the environmental authorisation process by conducting an Environmental Impact Assessment, Public Participation Process (PPP) for the proposed project and compile a Basic Assessment Report & Environmental Management Programme Report (BAR & EMPr). A Basic Assessment 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, questions that you have about the proposed project. Should you need any clarity on the attached documents 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 (for a brief description of the proposed project and timelines), Regulation map 2.2 and co-ordinates

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

Names: Thilivhali Ndou
Public Participation Officer
BSc : Environmental Science
BSc(Hons): Environmental Science
Office No. 870, 5 Balalaika Street
Tasbet Park Ext 2
eMalahleni
1040
Tel.: +27 13 692 0041
Cell: +27 63 050 6313
Fax: +27 86 5144 103
Email: thilivhali@singoconsulting.co.za



Good day,

Receive warm greetings from Singo Consulting (Pty) Ltd.

Singo Consulting (Pty) Ltd on behalf of **Ulibo Resources (Pty) Ltd** hereby wishes to inform you that it has applied for a Prospecting Rights together with Environmental Authorization to the Mpumalanga

Department of Mineral Resources & Energy (DMRE) in order to extract **coal** resource on **portion of Portions of the remaining extent of the farm Arendsfontein 464 JS, situated under the Magisterial District of Middleburg, Mpumalanga Province, with DMRE Ref.: MP 30/5/1/1/2/17258 PR).**

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) where one of the requirements is that all stakeholders must be notified of **Ulibo Resources (Pty) Ltd's** intentions to obtain a Prospecting Rights for the above-mentioned commodity. This invitation is extended to you as the department you serve may somehow be enforcing 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:

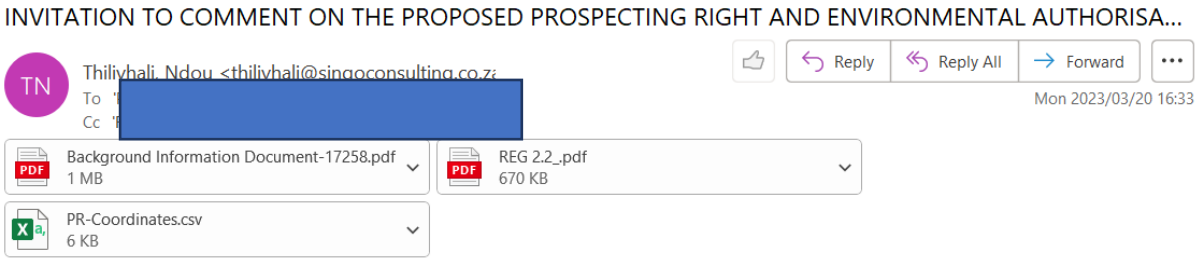
- ☞🗀☞👍 Register as an Interested and Affected Party (I&AP) and to respond to the environmental compliance process.
- ☞🗀☞👍 Raise issues of concern and provide suggestions for enhanced benefits.
- ☞🗀☞👍 Contribute to local knowledge.
- ☞🗀☞👍 Comment on the Draft Basic Assessment Report (DBAR) & Environmental Management Plan Report (EMPr)

Singo Consulting (Pty)Ltd has been appointed as an independent Environmental Assessment Practitioner (EAP) to manage the environmental authorisation process by conducting an Environmental Impact Assessment, Public Participation Process (PPP) for the proposed project and compile a Basic Assessment Report & Environmental Management Programme Report (BAR & EMPr). A Basic Assessment 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, questions that you have about the proposed project. Should you need any clarity on the attached documents 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 (for a brief description of the proposed project and timelines), Regulation map 2.2 and co-ordinates

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

Names: Thilivhali Ndou
Public Participation Officer
BSc : Environmental Science
BSc(Hons): Environmental Science
Office No. 870, 5 Balalaika Street
Tasbet Park Ext 2
eMalahleni
1040
Tel.: +27 13 692 0041
Cell: +27 63 050 6313
Fax: +27 86 5144 103
Email: thilivhali@singoconsulting.co.za



Good day,

Receive warm greetings from Singo Consulting (Pty) Ltd.

Singo Consulting (Pty) Ltd on behalf of **Ulibo Resources (Pty) Ltd** hereby wishes to inform you that it has applied for a Prospecting Rights together with Environmental Authorization to the Mpumalanga Department of Mineral Resources & Energy (DMRE) in order to extract **coal** resource on **portion of Portions of the remaining extent of the farm Arendsfontein 464 JS, situated under the Magisterial District of Middleburg, Mpumalanga Province, with DMRE Ref.: MP 30/5/1/1/2/17258 PR).**

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) where one of the requirements is that all stakeholders must be notified of **Ulibo Resources (Pty) Ltd's** intentions to obtain a Prospecting Rights for the above-mentioned commodity. This invitation is extended to you as the department you serve may somehow be enforcing 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.

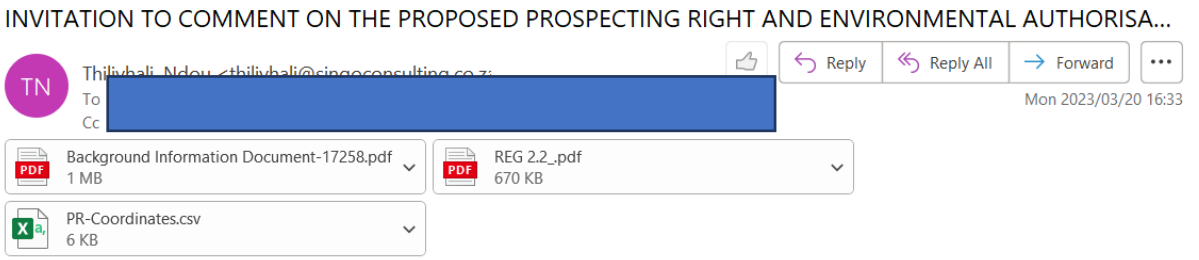
☞🗀☞👍 Comment on the Draft Basic Assessment Report (DBAR) & Environmental Management Plan Report (EMPr)

Singo Consulting (Pty)Ltd has been appointed as an independent Environmental Assessment Practitioner (EAP) to manage the environmental authorisation process by conducting an Environmental Impact Assessment, Public Participation Process (PPP) for the proposed project and compile a Basic Assessment Report & Environmental Management Programme Report (BAR & EMPr). A Basic Assessment 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, questions that you have about the proposed project. Should you need any clarity on the attached documents 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 (for a brief description of the proposed project and timelines), Regulation map 2.2 and co-ordinates

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

Names: Thilivhali Ndou
Public Participation Officer
BSc : Environmental Science
BSc(Hons): Environmental Science
Office No. 870, 5 Balalaika Street
Tasbet Park Ext 2
eMalahleni
1040
Tel.: +27 13 692 0041
Cell: +27 63 050 6313
Fax: +27 86 5144 103
Email: thilivhali@singoconsulting.co.za



Good day,

Receive warm greetings from Singo Consulting (Pty) Ltd.

Singo Consulting (Pty) Ltd on behalf of **Ulibo Resources (Pty) Ltd** hereby wishes to inform you that it has applied for a Prospecting Rights together with Environmental Authorization to the Mpumalanga Department of Mineral Resources & Energy (DMRE) in order to extract **coal** resource on **portion of Portions of the remaining extent of the farm Arendsfontein 464 JS, situated under the Magisterial District of Middleburg, Mpumalanga Province, with DMRE Ref.: MP 30/5/1/1/2/17258 PR).**

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) where one of the requirements is that all stakeholders must be notified of **Ulibo Resources (Pty) Ltd's** intentions to obtain a Prospecting Rights for the above-mentioned commodity. This invitation is extended to you as the department you serve may somehow be enforcing 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 the Draft Basic Assessment Report (DBAR) & Environmental Management Plan Report (EMPr)

Singo Consulting (Pty)Ltd has been appointed as an independent Environmental Assessment Practitioner (EAP) to manage the environmental authorisation process by conducting an Environmental Impact Assessment, Public Participation Process (PPP) for the proposed project and compile a Basic Assessment Report & Environmental Management Programme Report (BAR & EMPr). A Basic Assessment 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, questions that you have about the proposed project. Should you need any clarity on the attached documents 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 (for a brief description of the proposed project and timelines), Regulation map 2.2 and co-ordinates

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

Names: Thilivhali Ndou
Public Participation Officer
BSc : Environmental Science
BSc(Hons): Environmental Science
Office No. 870, 5 Balalaika Street
Tasbet Park Ext 2
eMalahleni
1040
Tel.: +27 13 692 0041
Cell: +27 63 050 6313
Fax: +27 86 5144 103
Email: thilivhali@singoconsulting.co.za

Good day,

Receive warm greetings from Singo Consulting (Pty) Ltd.

Singo Consulting (Pty) Ltd on behalf of **Ulibo Resources (Pty) Ltd** hereby wishes to inform you that it has applied for a Prospecting Rights together with Environmental Authorization to the Mpumalanga Department of Mineral Resources & Energy (DMRE) in order to extract **coal** resource on **portion of Portions of the remaining extent of the farm Arendsfontein 464 JS, situated under the Magisterial District of Middleburg, Mpumalanga Province, with DMRE Ref.: MP 30/5/1/1/2/17258 PR).**

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) where one of the requirements is that all stakeholders must be notified of **Ulibo Resources (Pty) Ltd's** intentions to obtain a Prospecting Rights for the above-mentioned commodity. This invitation is extended to you as the department you serve may somehow be enforcing 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 the Draft Basic Assessment Report (DBAR) & Environmental Management Plan Report (EMPr)

Singo Consulting (Pty)Ltd has been appointed as an independent Environmental Assessment Practitioner (EAP) to manage the environmental authorisation process by conducting an Environmental Impact Assessment, Public Participation Process (PPP) for the proposed project and compile a Basic Assessment Report & Environmental Management Programme Report (BAR & EMPr). A Basic Assessment 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, questions that you have about the proposed project. Should you need any clarity on the attached documents 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 (for a brief description of the proposed project and timelines), Regulation map 2.2 and co-ordinates

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

Names: Thilivhali Ndou
Public Participation Officer
BSc : Environmental Science
BSc(Hons): Environmental Science
Office No. 870, 5 Balalaika Street
Tasbet Park Ext 2
eMalahleni
1040
Tel.: +27 13 692 0041
Cell: +27 63 050 6313
Fax: +27 86 5144 103
Email: thilivhali@singoconsulting.co.za

Good day,

Receive warm greetings from Singo Consulting (Pty) Ltd.

Singo Consulting (Pty) Ltd on behalf of **Ulibo Resources (Pty) Ltd** hereby wishes to inform you that it has applied for a Prospecting Rights together with Environmental Authorization to the Mpumalanga Department of Mineral Resources & Energy (DMRE) in order to extract **coal** resource on **portion of Portions of the remaining extent of the farm Arendsfontein 464 JS, situated under the Magisterial District of Middleburg, Mpumalanga Province, with DMRE Ref.: MP 30/5/1/1/2/17258 PR).**

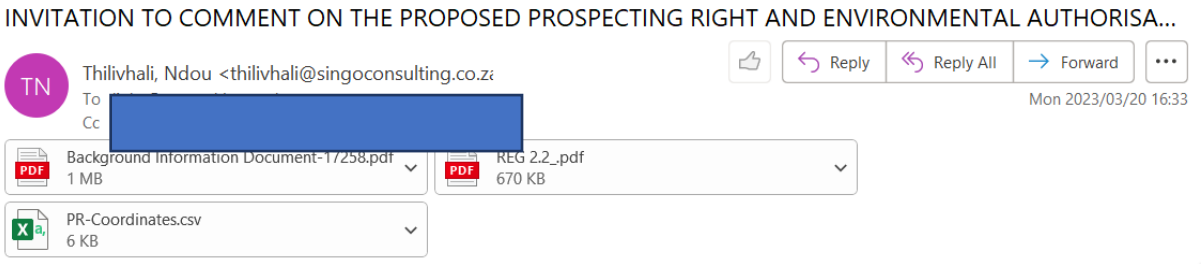
This Notification is being given in compliance with the terms of: Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA), National Environmental Management Act, 1998 (Act No. 107 of 1998), and EIA Regulations (as amended, 07 April 2017) where one of the requirements is that all stakeholders must be notified of **Ulibo Resources (Pty) Ltd's** intentions to obtain a Prospecting Rights for the above-mentioned commodity. This invitation is extended to you as the department you serve may somehow be enforcing 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 the Draft Basic Assessment Report (DBAR) & Environmental Management Plan Report (EMPr)

Singo Consulting (Pty)Ltd has been appointed as an independent Environmental Assessment Practitioner (EAP) to manage the environmental authorisation process by conducting an Environmental Impact Assessment, Public Participation Process (PPP) for the proposed project and compile a Basic Assessment Report & Environmental Management Programme Report (BAR & EMPr). A Basic Assessment 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, questions that you have about the proposed project. Should you need any clarity on the attached documents 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 (for a brief description of the proposed project and timelines), Regulation map 2.2 and co-ordinates

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



Good day,

Receive warm greetings from Singo Consulting (Pty) Ltd.

Singo Consulting (Pty) Ltd on behalf of **Ulibo Resources (Pty) Ltd** hereby wishes to inform you that it has applied for a Prospecting Rights together with Environmental Authorization to the Mpumalanga Department of Mineral Resources & Energy (DMRE) in order to extract **coal** resource on **portion of Portions of the remaining extent of the farm Arendsfontein 464 JS, situated under the Magisterial District of Middleburg, Mpumalanga Province, with DMRE Ref.: MP 30/5/1/1/2/17258 PR).**

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) where one of the requirements is that all stakeholders must be notified of **Ulibo Resources (Pty) Ltd's** intentions to obtain a Prospecting Rights for the above-mentioned commodity. This invitation is extended to you as the department you serve may somehow be enforcing 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 the Draft Basic Assessment Report (DBAR) & Environmental Management Plan Report (EMPr)

Singo Consulting (Pty)Ltd has been appointed as an independent Environmental Assessment Practitioner (EAP) to manage the environmental authorisation process by conducting an Environmental Impact Assessment, Public Participation Process (PPP) for the proposed project and compile a Basic Assessment Report & Environmental Management Programme Report (BAR & EMPr). A Basic Assessment 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, questions that you have about the proposed project. Should you need any clarity on the attached documents 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 (for a brief description of the proposed project and timelines), Regulation map 2.2 and co-ordinates

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

Names: Thilivhali Ndou
Public Participation Officer
BSc : Environmental Science
BSc(Hons): Environmental Science
Office No. 870, 5 Balalaika Street
Tasbet Park Ext 2
eMalahleni
1040
Tel.: +27 13 692 0041
Cell: +27 63 050 6313
Fax: +27 86 5144 103
Email: thilivhali@singoconsulting.co.za

Appendix 6: Screening Report

SCREENING REPORT FOR AN ENVIRONMENTAL AUTHORIZATION AS REQUIRED BY THE 2014 EIA REGULATIONS – PROPOSED DEVELOPMENT FOOTPRINT ENVIRONMENTAL SENSITIVITY

EIA Reference number: MP 30/5/1/1/2/17258 PR

Project name: Portion of portion of the remaining extent of the farm Arendsfontein 464 JS

Project title: Portion of portion of the remaining extent of the farm Arendsfontein 464 JS

Date screening report generated: 13/03/2023 14:34:49

Applicant: Ulibo Resources (Pty) Ltd

Compiler: Singo Consulting (Pty) Ltd

Compiler signature: .....

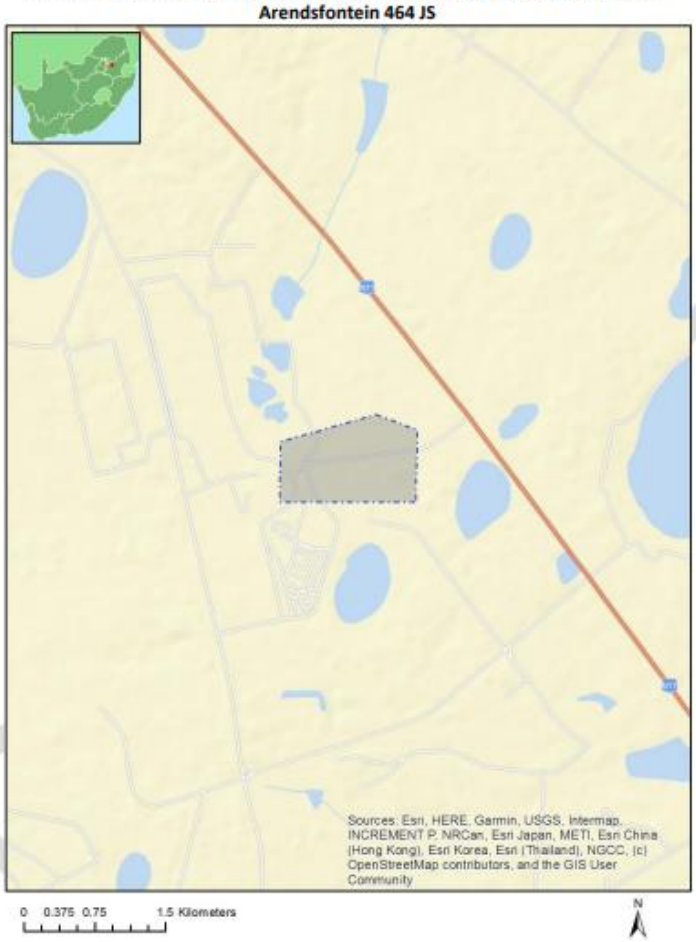
Application Category: Mining|Prospecting rights

Table of Contents

Proposed Project Location

Orientation map 1: General location

General Orientation: Portion of portion of the remaining extent of the farm Arendsfontein 464 JS



Map of proposed site and relevant area(s)

Cadastral details of the proposed site

Property details:

No	Farm Name	Farm/ Erf No	Portion	Latitude	Longitude	Property Type
1	ARENDSFONTEIN	464	0	25°52'58.88S	29°34'3.9E	Farm
2	ARENDSFONTEIN	464	0	25°52'58.88S	29°34'3.9E	Farm Portion

Development footprint[1] vertices:

Footprint	Latitude	Longitude
1	25°53'16.31S	29°34'29.05E
1	25°53'21.2S	29°34'43.1E
1	25°53'43.17S	29°34'42.6E
1	25°53'43.29S	29°33'56.29E
1	25°53'24.6S	29°33'56.54E
1	25°53'16.31S	29°34'29.05E

Wind and Solar developments with an approved Environmental Authorisation or applications under consideration within 30 km of the proposed area

[1] "development footprint", means the area within the site on which the development will take place and incudes all ancillary developments for example roads, power lines, boundary walls, paving etc. which require vegetation clearance or which will be disturbed and for which the application has been submitted.

No	EIA Reference No	Classification	Status of application	Distance from proposed area (km)
1	14/12/16/3/3/2/759	Solar PV	Approved	23.8

Environmental Management Frameworks relevant to the application

Environmental Management Framework	LINK
Olifants EMF	https://screening.environment.gov.za/ScreeningDownloads/EMF/Zone_46,_67,_78,_80,_92,_103,_122,_129.pdf

Environmental screening results and assessment outcomes

The following sections contain a summary of any development incentives, restrictions, exclusions or prohibitions that apply to the proposed development footprint as well as the most environmental sensitive features on the footprint based on the footprint sensitivity screening results for the application classification that was selected. The application classification selected for this report is:
Mining|Prospecting rights.

Relevant development incentives, restrictions, exclusions or prohibitions

The following development incentives, restrictions, exclusions or prohibitions and their implications that apply to this footprint are indicated below.

Incentive, restriction or prohibition	Implication
Strategic Transmission Corridor-International corridor	https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/Combined_EGI.pdf
Air Quality-Highveld Priority Area	https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/HIGHVELD_PRIORITY_AREA_AQMP.pdf
Renewable energy development zones 9-Emalahleni	https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/Combined_REDZ.pdf
Strategic Gas Pipeline Corridors -Phase 8: Rompco Pipeline Corridor	https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/Combined_GAS.pdf

Map indicating proposed development footprint within applicable development incentive, restriction, exclusion or prohibition zones

Project Location: Portion of portion of the remaining extent of the farm Arendsfontein 464 JS

Proposed Development Area Environmental Sensitivity

The following summary of the development footprint environmental sensitivities is identified. Only the highest environmental sensitivity is indicated. The footprint environmental sensitivities for the proposed development footprint as identified, are indicative only and must be verified on site by a suitably qualified person before the specialist assessments identified below can be confirmed.

Theme	Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity

Agriculture Theme		X		
Animal Species Theme		X		
Aquatic Biodiversity Theme	X			
Archaeological and Cultural Heritage Theme				X
Civil Aviation Theme			X	
Defence Theme				X
Paleontology Theme	X			
Plant Species Theme			X	
Terrestrial Biodiversity Theme	X			

Specialist assessments identified

Based on the selected classification, and the known impacts associated with the proposed development, the following list of specialist assessments have been identified for inclusion in the assessment report. It is the responsibility of the EAP to confirm this list and to motivate in the assessment report, the reason for not including any of the identified specialist study including the provision of photographic evidence of the footprint situation.

No	Specialist assessment	Assessment Protocol
1	Agricultural Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Agriculture_Assessment_Protocols.pdf
2	Archaeological and Cultural Heritage Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf
3	Palaeontology Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf
4	Terrestrial Biodiversity Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Terrestrial_Biodiversity_Assessment_Protocols.pdf
5	Aquatic Biodiversity Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Aquatic_Biodiversity_Assessment_Protocols.pdf

6	Noise Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Noise_Impacts_Assessment_Protocol.pdf
7	Radioactivity Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf
8	Plant Species Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Plant_Species_Assessment_Protocols.pdf
9	Animal Species Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Animal_Species_Assessment_Protocols.pdf

Results of the environmental sensitivity of the proposed area.

The following section represents the results of the screening for environmental sensitivity of the proposed footprint for relevant environmental themes associated with the project classification. It is the duty of the EAP to ensure that the environmental themes provided by the screening tool are comprehensive and complete for the project. Refer to the disclaimer.

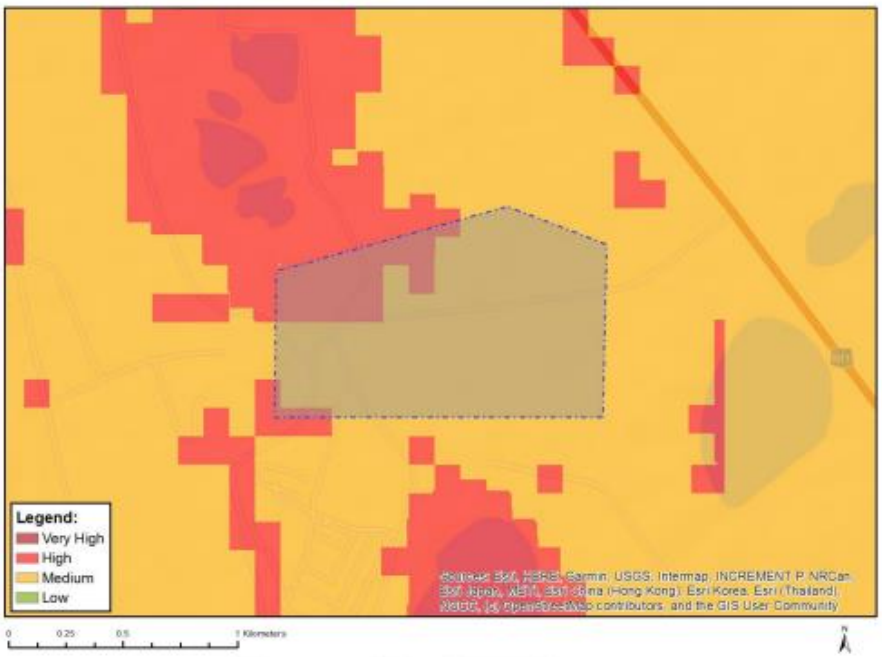
MAP OF RELATIVE AGRICULTURE THEME SENSITIVITY

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
	X		

Sensitivity Features:

Sensitivity	Feature(s)
High	Land capability;09. Moderate-High/10. Moderate-High
High	Annual Crop Cultivation / Planted Pastures Rotation;Land capability;09. Moderate-High/10. Moderate-High
High	Annual Crop Cultivation / Planted Pastures Rotation;Land capability;06. Low-Moderate/07. Low-Moderate/08. Moderate
Medium	Land capability;06. Low-Moderate/07. Low-Moderate/08. Moderate

MAP OF RELATIVE ANIMAL SPECIES THEME SENSITIVITY



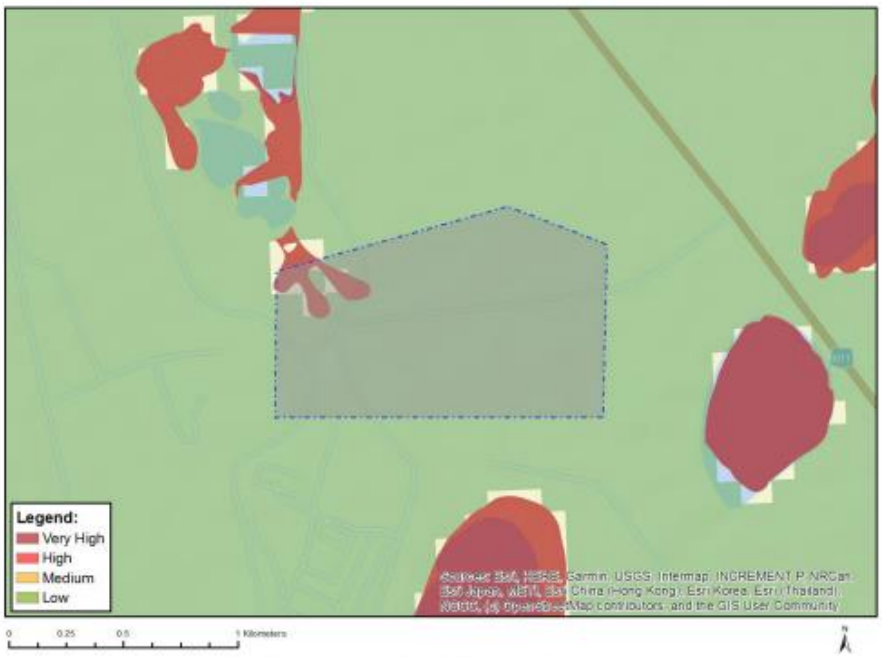
Where only a sensitive plant unique number or sensitive animal unique number is provided in the screening report and an assessment is required, the environmental assessment practitioner (EAP) or specialist is required to email SANBI at eiadatarequests@sanbi.org.za listing all sensitive species with their unique identifiers for which information is required. The name has been withheld as the species may be prone to illegal harvesting and must be protected. SANBI will release the actual species name after the details of the EAP or specialist have been documented.

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
	X		

Sensitivity Features:

Sensitivity	Feature(s)
High	Aves-Tyto capensis
High	Aves-Circus ranivorus
High	Aves-Eupodotis senegalensis
High	Aves-Mycteria ibis
Medium	Aves-Hydroprogne caspia
Medium	Aves-Sagittarius serpentarius
Medium	Mammalia-Chrysospalax villosus
Medium	Mammalia-Crocidura maquassiensis
Medium	Mammalia-Hydrictis maculicollis
Medium	Mammalia-Ourebia ourebi ourebi

MAP OF RELATIVE AQUATIC BIODIVERSITY THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low sensitivity
Very High	Wetlands and Estuaries

MAP OF RELATIVE ARCHAEOLOGICAL AND CULTURAL HERITAGE THEME SENSITIVITY

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low sensitivity

MAP OF RELATIVE ARCHAEOLOGICAL AND CULTURAL HERITAGE THEME SENSITIVITY

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low sensitivity

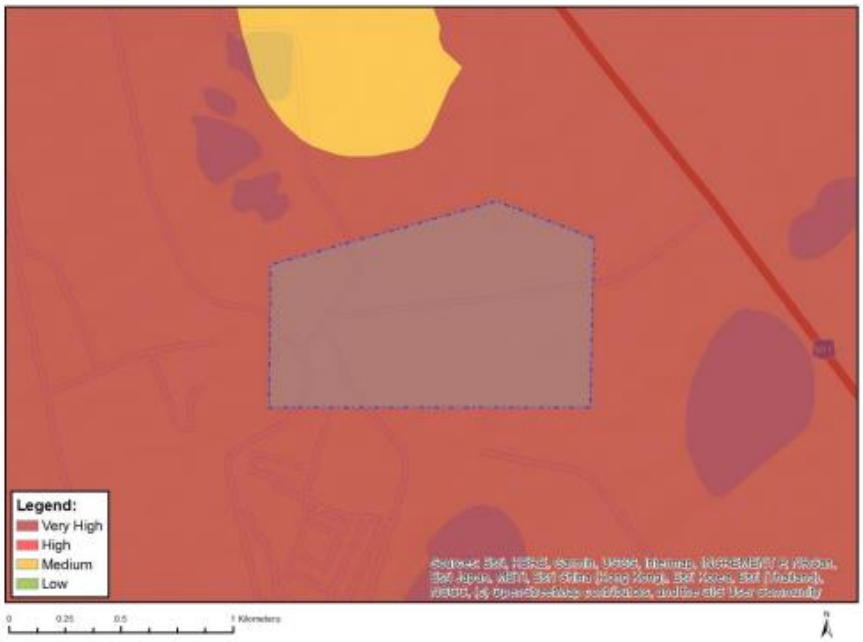
MAP OF RELATIVE DEFENCE THEME SENSITIVITY

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low Sensitivity

MAP OF RELATIVE PALEONTOLOGY THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity Features:

Sensitivity	Feature(s)
Medium	Features with a Medium paleontological sensitivity
Very High	Features with a Very High paleontological sensitivity

MAP OF RELATIVE PLANT SPECIES THEME SENSITIVITY

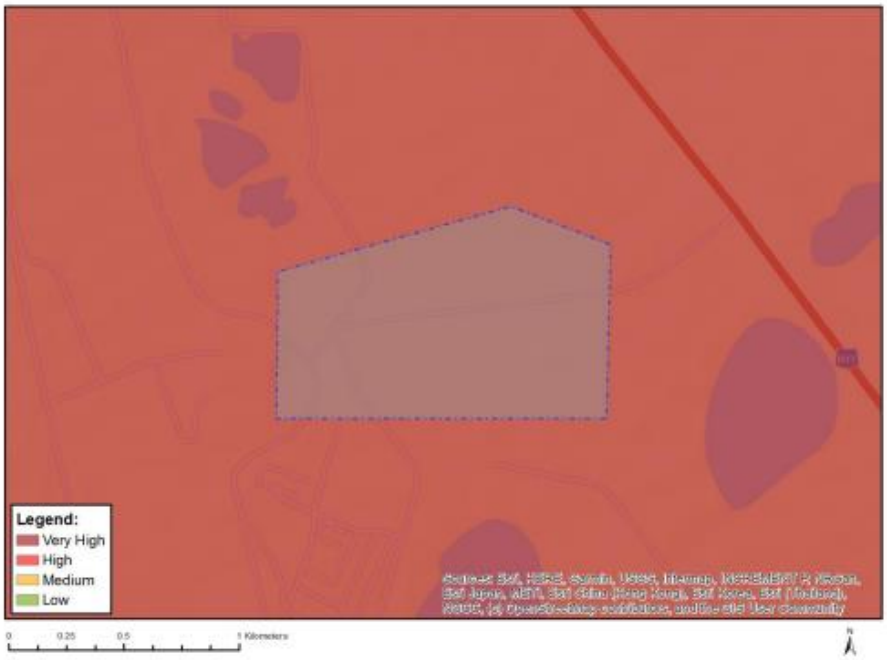
Where only a sensitive plant unique number or sensitive animal unique number is provided in the screening report and an assessment is required, the environmental assessment practitioner (EAP) or specialist is required to email SANBI at eiadatarequests@sanbi.org.za listing all sensitive species with their unique identifiers for which information is required. The name has been withheld as the species may be prone to illegal harvesting and must be protected. SANBI will release the actual species name after the details of the EAP or specialist have been documented.

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		X	

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low Sensitivity
Medium	Sensitive species 1200
Medium	Sensitive species 41
Medium	Sensitive species 691
Medium	Pachycarpus suaveolens

MAP OF RELATIVE TERRESTRIAL BIODIVERSITY THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity Features:

Sensitivity	Feature(s)
Very High	Vulnerable ecosystem

Appendix 7: Impact management

ACTIVITY whether listed or not listed. **(E.g., Excavations, blasting, stockpiles, discard dumps or dams, Loading, hauling and transport, Water supply dams and boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc…etc…etc.)**.	**POTENTIAL IMPACT** **(e.g., dust, noise, drainage surface disturbance, fly rock, surface water contamination, groundwater contamination, air pollution etc….etc…)**	**MITIGATION TYPE** **(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.** **etc)** **E.g.** • **Modify through alternative method.** • **Control through noise control** • **Control through management and monitoring** **Remedy through rehabilitation.**	**TIME PERIOD FOR IMPLEMENTATION** Describe the time period when the measures in the environmental management programme must be implemented Measures must be implemented when required. Regarding Rehabilitation specifically this must take place at the earliest opportunity. .With regard to Rehabilitation, therefore state either:-.. Upon cessation of the individual activity or. Upon the cessation of mining, bulk sampling or alluvial diamond prospecting as the case may be.	**COMPLIANCE WITH STANDARDS** (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 Office and core shed	Physical surface disturbance	No construction on site. If need be, to utilise existing building and agreement to be done with farmer	N/A	N/A
Accommodation	Physical surface disturbance	No construction on site. If need be, to utilise existing building and agreement to be done with farmer	N/A	N/A
Site Establishment	Dust and Noise from Vehicles driving in veld. to access the proposed drill site	Noise control, reduce dust by driving slowly. Ensure vehicles and equipment are maintained. Silencers should be fitted on all engines.	Ongoing during activity	Ulibo Resources (Pty) Ltd will ensure that all employees, contractors, visitors comply with the EMP
Site Establishment	Carbon emissions due	Ensure vehicles and equipment	Ongoing during activity	Ulibo Resources (Pty) Ltd will
	to internal combustion of fuel	are maintained.		ensure that all employees, contractors, visitors comply with the EMP
Drilling	Noise	Ensure vehicles and equipment are maintained. Silencers should be fitted on all engines.	Ongoing during activity	Ulibo Resources (Pty) Ltd will ensure that all employees, contractors, visitors comply with

				the EMP
Drill site	Removal of top soil for sump. Drainage surface disturbance	Rehabilitate ground soon after drilling.	Upon cessation of individual activity	Ulibo Resources (Pty) Ltd will ensure that all employees, contractors, visitors comply with the EMP
Drill Site	Dust	Put dust control measures	Ongoing during activity	Ulibo Resources (Pty) Ltd will ensure that all employees, contractors, visitors comply with the EMP
Drilling	Use of drilling mud during drilling operations	Put control measures	Ongoing during activity	Ulibo Resources (Pty) Ltd will ensure that all employees, contractors, visitors comply with the EMP
Drilling	Failure of drill sludge control system	Establish EMP procedures to minimise hydrocarbon spills.	Ongoing during activity	Ulibo Resources (Pty) Ltd will ensure that all employees, contractors, visitors comply with the EMP
Drilling	Breakdown of machinery, oil spillages	Establish EMP procedures to minimise hydrocarbon spills.	Ongoing during activity	Ulibo Resources (Pty) Ltd will ensure that all employees, contractors, visitors comply

				with the EMP

Appendix 8: CV's and Company Profile

EAP profile

Dr Kenneth Singo

Ph.D (Applied Environmental Mineralogy & Geochemistry), M.Sc (Environmental Geochemistry), B.Sc. (Hons) Mining & Environmental Geology)

1 Introduction

Kenneth Singo is a Principal Consultant (Mining, Agricultural and Environmental Projects) at Singo Consulting, an advisory firm based in eMalahleni. He has over 11 years' extensive experience in Geology, Geochemistry and Environmental Geochemistry. Kenneth is a coal expert and has gained invaluable and extensive experience working on projects in the Waterberg, Soutpansberg, Witbank, Highveld, Springbok flats, and the Tete (Moatize) coalfield in Mozambique.

Kenneth's career started at Malatleng Mining CC, where he was appointed as a Geology Consultant and Environmental Analyst. In search for growth, he joined Ncondezi Coal Company in Mozambique (Tete Coal basin) as Leading Project Geologist. Thereafter, he worked for Anglo American Thermal Coal as a Senior Project Geologist. At present, Kenneth is the Managing Director and Principal Consultant for Singo Consulting (Pty) Ltd.

Kenneth holds a BSc (Hons) in Mining and Environmental Geology (the University of Venda), an MSc in Environmental Geochemistry (University of South Africa (UNISA)), and a Ph.D. in Geology, Applied Environmental Mineralogy and Geochemistry (University of Johannesburg).

Kenneth has knowledge of Mine Water and Mine Environmental Management (acid mine drainage, heavy metal assessments and tailings management) in various commodities, including coal, gold, magnesite and base metals (Cu, Pb, Zn). He has extensive knowledge of defunct mining waste and has conducted numerous wastewater impact assessments to determine the effect of such activities on surrounding communities. Kenneth has sound knowledge of risk assessment, both in terms of human health and the environment. He is experienced in the appraisal of potential constraints, as well as devising means of mitigation through remedial strategy development, feasibility and validation.

During his PhD studies, Kenneth learned how to operate in contaminated lands. His PhD largely focused on disused mines (gold, copper and magnesite) ranging from Phase I and Phase II investigations to development of remedial strategies (i.e. Phase III). He has gained a thorough understanding of waste classification, profiling and the implications of waste management, landfill disposal profiling and beneficiation strategy development.

2 Affiliations

- South African Council for Natural Scientific Professions (SACNASP: Earth Science Reg. No: 400069/16)
- Geological Society of South Africa (GSSA)

Singo Consulting (Pty) Ltd

Office no 16, 1st floor
Corridor Hill Crossing
9 Langa Crescent
Corridor Hill, eMalahleni
Mpumalanga, 1035

013 692 0041
078 272 7839 / 072 081 6682
086 514 4103
admin@singoconsulting.co.za
www.singoconsulting.co.za

- Land Rehabilitation Society of Southern Africa (LaRSSA)
- South African Affiliates of the International Association for Impact Assessment (IAIAsa)
- WESSA (People Caring for the Earth)
- Environmental Assessment Practitioners Association of South Africa (EAPASA)

3 Academic affiliations

1. The Department of Environmental Affairs appointed Kenneth to mentor eleven environmental management and geological students (from South Africa's Universities of Technologies) per year. This appointment is for a five-year period (August 2019-August 2024).

Contact: Brian Makhubedu

- 012 399 9926
- 079 210 6323
- BMakhubedu@environment.gov.za

2. Tshwane University of Technology (TUT) appointed Kenneth as an Academic Advisory Committee Member for the Department of Environmental, Water and Earth Sciences (August 2019-August 2024).

Contact: Mrs Retha Enslin

- Departmental Administrator to HOD (Environmental, Water and Earth Sciences) at TUT's Arcadia campus
- (012) 382-6232/(012) 382-6354
- enslinme@tut.ac.za

3. Kenneth has worked as an assistant lecturer at UNISA (online and face-to-face), since 2013, for the Mining and Environment, Mining Geology, Surveying and Exploitation modules.

Contact: AA Mkonde

- 011 471 2840
- J-B-067, Euclid Building
- Mkondmm@unisa.ac.za

As part of academic skills and mentorship, Kenneth co-supervised the following studies:

Study 1

Title	*Petrological investigation of kimberlite pipe – k19: a comparison study of Kim-A and Kim-B, Venetia mine, Limpopo province*
Level	Honours
Student	Nevhulamba Mulalo
Student number	1155 1834
Institution	University of Venda

Supervisor	Prof. Jason S. Ogola
Institution	University of Venda (Department of Mining and Environmental Geology)
Tel/Fax	+27(015) 9628 580
Mobile	+27 76 876 5436
Email	ogolaj@univen.ac.za

Study 2

Title	*Assessment of environmental and socio-economic impacts of small-scale mining at Mukula stone crushers, Limpopo Province*
Level	Honours
Student	Masindi Nefale
Student number	1155 0445
Institution	University of Venda
Supervisor	Prof. Jason S. Ogola
Institution	University of Venda (Department of Mining and Environmental Geology)
Tel/Fax	+27(015) 9628 580
Mobile	+27 76 876 5436
Email	ogolaj@univen.ac.za

Study 3

Title	*Strategies for mitigating the adverse effects of small-scale mining on the environment in Folovhodwe, Limpopo Province*
Level	Honours

Student	Rakuambo Takalani Constance
Student number	1153 3582
Institution	University of Venda
Supervisor	Prof. Jason S. Ogola
Institution	University of Venda (Department of Mining and Environmental Geology)
Tel/Fax	+27(015) 9628 580
Mobile	+27 76 876 5436
Email	ogolaj@univen.ac.za

Study 4

Title	*Investigation of the Facies boundaries between the sandstone-coal seam contact and siltstone-coal seam contact*
Level	Masters
Student	Nevhulamba Mulalo
Student number	N/A
Institution	University of the Witwatersrand (Wits)

Study 5

Title	*Assessment of concentration of heavy metals in tailings used for brick making and determination of consequences of exposure to workers at Musina abandoned copper mine, Limpopo Province*
Level	Honours

Appendix 9: Baseline studies.